

December 10, 1956

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Dear Sir:

Enclosed please find personal check for \$6.90. Please place my name on your mailing list to receive "Federal Communications Commission Reports" for one year beginning January 1, 1957 @ \$6.75. I am also enclosing fifteen cents to cover Part 12, Rules Governing Amateur Radio Service, notice enclosed.

Yours very truly,

Cecil S. Bidlack
Television Engineer

CSB:ap

Enclosure 1

The following part of the Commission's Rules has been revised:

Part 14 - Public Fixed Stations and Stations of the Maritime
Services in Alaska. August 1956 Edition.

The Commission is unable to furnish copies of the revised text. Copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. The cost is 10 cents per copy, cash, check, or money order payable to that office. Cash is sent at owner's risk. Do not send orders to the Commission

Amendments to the previous print have been discontinued and your name removed from the mailing list. Future amendments to the revised print will be supplied, as far as practicable, provided the notice form furnished with each copy purchased is completed and returned to the Commission.

Mary Jane Morris, Secretary

October 15, 1956

Federal Communications Commission

NAEB HEADQUARTERS
14 Gregory Hall
Urbana, Illinois

October 29, 1956

TO: ALL NAEB MEMBERS

RE: FCC RULING ON IDENTIFICATION OF RECORDED PROGRAMS

In its public notice #36946, dated October 4, 1956, the FCC amended the rules covering the identification of recorded programs. Furnished herewith is a digest of this order and the exact amendments.

In substance, these amendments relax the present AM, FM and TV identification requirements for recorded programs to require uniformly an appropriate announcement, either at the beginning or conclusion of the broadcast, only with respect to recorded programs or material in which the element of time is of special significance and the lack of an announcement might create the impression or belief in the mind of the listener or viewer that the event or program is, in fact, occurring simultaneously with the broadcast.

No identification will be required for recorded programs one minute or less in duration, and waiver of the recorded announcement requirements will be permitted when network programs are transcribed and rebroadcast one hour later by stations on standard time during the annual periods in which daylight saving time is in effect and where network programs are transcribed and rebroadcast at a later hour because of the time differential. Under the waiver provisions only a single daily announcement is required to identify all such programs transmitted for delayed broadcast. There is no requirement that the Commission be advised by any network or station taking advantage of either waiver.

The amendments make it clear that they do not require mechanically reproduced programs to be announced as such when the time element is not of special significance; they require only one identifying announcement either before or after the broadcast of recorded programs at the option of the licensee when the time element is significant.

The changes are, in general, along the lines of proposals of the National Association of Radio and Television Broadcasters (NARTB) and the American Broadcasting Co. (ABC). The proceeding was initiated Nov. 16, 1955. It affects the AM rules (Sect. 3.118); TV (Sect. 3.653); FM (Sect. 3.288) and noncommercial educational FM (Sect. 3.588).

1. Section 3.118 is amended to read as follows:

§ 3.118 Mechanical reproductions.

- (a) No mechanically reproduced program consisting of a speech, news event, news commentator, forum, panel discussion, or special event in which the

element of time is of special significance, or any other program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the listening audience that the event or program being broadcast is in fact occurring simultaneously with the broadcast, shall be broadcast without an appropriate announcement being made either at the beginning or end of such reproduction or at the beginning or end of the program in which such reproduction is used that it is a mechanical reproduction or a mechanically reproduced program: Provided, however, That each such program of one minute or less need not be announced as such.

- (b) The exact form of identifying announcement is not prescribed, but the language shall be clear and in terms commonly used and understood. Any other program mechanically reproduced or series of mechanical reproductions, including a mechanical reproduction used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.
- (c) The requirements of subsection (a) are waived with respect to network programs, transcribed and rebroadcast at a later hour because of the time zone differentials between the place where the program originates and where it is rebroadcast, this waiver being applicable whether the off-the-line recording is made by the network itself at one of its key stations or by an individual station, but only when the off-the-line recording is for broadcast at an hour not exceeding the time zone differential between the place where the program originates and where it is rebroadcast. Each station which broadcasts network programs at a later hour in accordance with this waiver shall make an appropriate announcement at least once each day between the hours of 10:00 a.m. and 10:00 p.m., stating that some or all of the network programs which are broadcast by that station are delayed broadcasts by means of transcription. This waiver provision also

applies during the annual periods in which daylight saving time will be effective with respect to network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas.

2. Section 3.288 is amended to read as follows:

§ 3.288 Mechanical reproductions.

- (a) No mechanically reproduced program consisting of a speech, news event, news commentator, forum, panel discussion or special event in which the element of time is of special significance, or any other program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the listening audience that the event or program being broadcast is in fact occurring simultaneously with the broadcast, shall be broadcast without an appropriate announcement being made either at the beginning or end of such reproduction or at the beginning or end of the program in which such reproduction is used that it is a mechanical reproduction or a mechanically reproduced program: Provided, however, That each such program of one minute or less need not be announced as such.
- (b) The exact form of identifying announcement is not prescribed, but the language shall be clear and in terms commonly used and understood. Any other program mechanically reproduced or series of mechanical reproductions, including a mechanical reproduction used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.
- (c) The requirements of subsection (a) are waived with respect to network programs, transcribed and rebroadcast at a later hour because of the time zone differential between the place where the program originates and where it is rebroadcast, this waiver being applicable whether the off-the-line recording is made by the network

itself at one of its key stations or by an individual station, but only when the off-the-line recording is for broadcast at an hour not exceeding the time zone differential between the place where the program originates and where it is rebroadcast. Each station which broadcasts network programs at a later hour in accordance with this waiver shall make an appropriate announcement at least once each day between the hours of 10:00 a.m. and 10:00 p.m., stating that some or all of the network programs which are broadcast by that station are delayed broadcasts by means of transcription. This waiver provision also applies during the annual periods in which daylight saving time will be effective with respect to network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas.

3. Section 3.588 is amended to read as follows:

§ 3.588 Mechanical reproductions.

- (a) No mechanically reproduced program consisting of a speech, news event, news commentator, forum, panel discussion, or special event in which the element of time is of special significance, or any other program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the listening audience that the event or program being broadcast is in fact occurring simultaneously with the broadcast, shall be broadcast without an appropriate announcement being made either at the beginning or end of such reproduction or at the beginning or end of the program in which such reproduction is used that it is a mechanical reproduction or a mechanically reproduced program: Provided, however, That each such program of one minute or less need not be announced as such.
- (b) The exact form of identifying announcement is not prescribed, but the language shall be clear and in terms commonly used and understood. Any other program mechanically reproduced or series of mechanical reproductions, including a mechanical reproduction used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.
- (c) The requirements of subsection (a) are waived with respect to network programs, transcribed and rebroadcast at a later hour because of the time zone differential between the place where the program originates and where it is rebroadcast, this waiver being applicable whether the off-the-line recording is made by the network itself at one of its key stations or by an individual station, but only when the off-the-line record-

ing is for broadcast at an hour not exceeding the time zone differential between the place where the program originates and where it is rebroadcast. Each station which broadcasts network programs at a later hour in accordance with this waiver shall make an appropriate announcement at least once each day between the hours of 10:00 a.m. and 10:00 p.m., stating that some or all of the network programs which are broadcast by that station are delayed broadcasts by means of transcription. This waiver provision also applies during the annual periods in which daylight saving time will be effective with respect to network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas.

4. Section 3.653 is amended to read as follows:

§ 3.653 Mechanical reproductions.

- (a) No mechanically reproduced program, whether visual or aural, consisting of a speech, news event, news commentator, forum, panel discussion, or special event in which the element of time is of special significance, or any other program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the listening audience that the event or program being broadcast is in fact occurring simultaneously with the broadcast, shall be broadcast without an appropriate announcement being made either at the beginning or end of such reproduction or at the beginning or end of the program in which such reproduction is used that it is a mechanical reproduction or mechanically reproduced program: Provided, however, That each such program of one minute or less need not be announced as such.
- (b) The exact form of identifying announcement is not prescribed, but the language shall be clear and in terms commonly used and understood. Any other program mechanically reproduced or series of mechanical reproductions, including a mechanical reproduction used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.
- (c) The requirements of subsection (a) are waived with respect to network programs, transcribed and rebroadcast at a later hour because of the time zone differential between the place where the program originates and where it is rebroadcast, this waiver being applicable whether the off-the-line recording is made by the network itself at one of its key stations or by an individual station, but only when the off-the-line recording is for broadcast at an hour not exceeding the time zone differential between the place where the program originates and where it is rebroadcast. Each station

which broadcasts network programs at a later hour in accordance with this waiver shall make an appropriate announcement at least once each day between the hours of 10:00 a.m. and 10:00 p.m., stating that some or all of the network programs which are broadcast by that station are delayed broadcasts by means of transcription. This waiver provision also applies during the annual periods in which daylight saving time will be effective with respect to network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas.

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FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

FCC File

PUBLIC NOTICE

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36946

Report No. 2928

BROADCAST ACTION

Shannon
white

October 4, 1956

no

The Commission en banc, by Commissioners McConnaughey (Chairman), Hyde, Doerfer, Lee, Mack and Craven, took the following action on Oct. 3:

RELAX RULES ON IDENTIFICATION OF RECORDED PROGRAMS

The Commission finalized rule making which liberalizes regulations pertaining to the identification of recorded broadcast programs (Docket 11546), effective Nov. 7.

the amendments

In substance, the covering Report and Order relaxes the present AM, FM and TV identification requirements for recorded programs to require uniformly an appropriate announcement, either at the beginning or conclusion of the broadcast, only with respect to recorded programs or material in which the element of time is of special significance and the lack of an announcement might create the impression or belief in the mind of the listener or viewer that the event or program is, in fact, occurring simultaneously with the broadcast.

No identification will be required for recorded programs one minute or less in duration, and waiver of the recorded announcement requirements will be permitted when network programs are transcribed and rebroadcast one hour later by stations on standard time during the annual periods in which daylight saving time is in effect and where network programs are transcribed and rebroadcast at a later hour because of the time differential. Under the waiver provisions only a single daily announcement is required to identify all such programs transmitted for delayed broadcast. There is no requirement that the Commission be advised by any network or station taking advantage of either waiver.

The amendments make it clear that they do not require mechanically reproduced programs to be announced as such when the time element is not of special significance; they require only one identifying announcement either before or after the broadcast of recorded programs at the option of the licensee when the time element is significant.

The changes are, in general, along the lines of proposals of the National Association of Radio and Television Broadcasters (NARTB) and the American Broadcasting Co. (ABC). The proceeding was initiated Nov. 16, 1955. It affects the AM rules (Sect. 3.118); TV (Sect. 3.653); FM (Sect. 3.288) and noncommercial educational FM (Sect. 3.588).

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

FCC 55-963
36390

No

In the Matter of

Amendment of Sections 3.118, 3.288,
3.588 and 3.653 of the Commission's
Rules and Regulations relating to
mechanical reproductions.

Docket No. 11546

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COIN & MARKS

REPORT AND ORDER

By the Commission: Commissioner Bartley not participating.

1. The Commission has under consideration its Notice of Proposed Rule Making issued November 17, 1955 (FCC 55-1136) proposing to amend Sections 3.118 (AM), 3.288 (FM), 3.588 (noncommercial FM) and 3.653 (TV) of the Commission's Rules and Regulations which relate to the announcement requirements for programs broadcast by means of mechanical reproduction. By that Notice, it was proposed that the above mechanical reproduction rules be uniformly amended to relax the present identification requirements for recorded programs so as to require announcements for mechanically reproduced programs only in the case of a speech, news event, news commentator, forum, panel discussion, special event, or any other such program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the audience that the event or program being broadcast is, in fact, occurring simultaneously with the broadcast. Another amendment, much narrower in scope than the foregoing proposal which substantially encompasses it, was also proposed. This later proposal would amend the mechanical reproduction rules only to the extent of making the present waiver provision in paragraph (a)(6) of Section 3.118 (AM) of the Rules applicable to the FM, non-commercial FM and TV mechanical reproduction rules and extend the waiver provision, which now permits elimination of mechanical recordination announcements only with respect to network programs delayed for one hour because of daylight saving time in some areas, to network programs which are transcribed and rebroadcast at a later hour because of the time differential resulting from the time zone differences between the place where the program originates and where it is rebroadcast. The Notice was issued in response to a petition filed by the National Association of Radio and Television Broadcasters urging the broad revision of the AM, FM and TV mechanical reproduction rules and by a petition filed by the American Broadcasting Company for the amendment of the footnote waiver provision.

1/ Prior to recodification of Part 3 of the Rules, effective January 2, 1956, Section 3.118 was Section 3.188 and the waiver provision was appended as a footnote to Section 3.188.

2. Comments on the proposed amendments were received from the petitioners, the NARTB and ABC^{2/} and from over 300 standard, FM, and television licensees and permittees and other parties concerned with broadcasting. Only three parties, the American Federation of Musicians, Charles W. Balthrope, President of KITE (AM) and KITE-FM, San Antonio, Texas, and licensee of Station KENN, Kennedy, Texas, and Richard B. Blanchard, Jr., of Hollywood, California, express opposition to the proposed amendments or their objective of relaxing present requirements. Most of the parties urge the adoption of the NARTB proposal or its substance; but a number of parties recommend that the language of the proposed amendment be clarified or modified in some respects, as more fully discussed below. A few parties maintain that the present mechanical recordation rules are adequate but that no harm would ensue from the relaxation of the rules as proposed, provided practical adherence to their requirements can be assured. Many of the parties favoring adoption of the amendment proposed by the NARTB state that while they also favor the adoption of the proposed amendment to the waiver provision (Section 3.118(6)), the need for the waiver provision would be eliminated by revising the mechanical reproduction rules along the lines proposed by the NARTB.

NARTB COMMENTS

3. In support of the proposed amendment, the NARTB agrees that the proposed amendment should also apply to Section 3.588 (non-commercial educational FM) as proposed in the Notice, and urges that the arguments presented in its petition warrant its adoption. In its petition the Association urged that the present rules governing mechanical reproductions are outmoded in the light of the great strides which have been made in the recording, transcription, broadcasting and telecasting fields, as well as the existence of a more sophisticated audience response. While the Association subscribes to the broad principle that the public interest is best served by the elimination of industry practices deliberately calculated to mislead or deceive the public in any way, it urges that the present rules extend a protection neither warranted by the actualities of broadcasting nor in reality desired by the public. NARTB submits that there is little possibility of deceiving the public by deletion of the announcement that a broadcast is accomplished by means of mechanical reproduction, except with respect to those programs in which the element of time is of such special significance that the impression or belief would be created in the mind of the public that the event or program is, in fact, occurring simultaneously with the broadcast. The Association concedes that newscasts, political speeches, panels, forums, news commentators and special events are vested with such public significance and, in general, have gained such widespread listener attention as to warrant the safeguard that, if broadcast through means of mechanical reproduction, they should be announced as such.

^{2/} ABC also filed on June 1, 1956, a Petition for Expedited Action or Interim Relief which in light of our action here is now moot.

NARTB maintains that no real benefit results from requiring programs in which the element of time and significance is not of special importance to be announced as being mechanically reproduced since under present conditions a mechanically reproduced program is often superior to a live program; the possibilities of deception are minimal; and such announcements serve only to disrupt program continuity and to irritate the public. NARTB submits that the public is more concerned with technical quality and program content than with the method by which the programs are broadcast. While the Association recognizes that under its proposal the public may occasionally believe that a mechanically reproduced program is a live broadcast, it urges the application of a rule of reason and that public interest considerations, inherent in "high program" content call for service to the public free from announcements of the obvious. With respect to delayed programs in which the element of time is of special significance, NARTB contends that broadcasters may be expected to present such programs in a manner and with such announcements as will inform listeners adequately of the circumstances. The Association notes that it approves the ABC proposal for amending paragraph (a) of Section 3.118 of the rules but that its own proposal will achieve the results sought by ABC.

4. The majority of the parties supporting the proposed amendment advance arguments similar to those of NARTB. They also urge that the mechanical recordation rules for A, F, TV and noncommercial educational AM broadcast stations should be made uniform. They claim that the present rules have become outmoded through technological advances, industry growth and public acceptance and no longer serve any useful purpose where the element of timeliness is entirely immaterial to the listener or viewer; that the value of such programs as news, sports events, weather reports, auction sales of live stock, political speeches, panels, forums, and those of an emergency nature depend upon the time element involved and should be announced; and that the proposed amendment recognizes the necessity of informing the public of a mechanical reproduction when a question of timeliness is involved and contains adequate safeguards to insure that such programs are announced and that deliberate misrepresentation is prohibited. They state that the present rules were adopted to prevent misleading the public as to whether the broadcast was live or recorded at a time when live broadcasting was the standard and mechanical reproduction program material was technically inferior and constituted only a minor part of a station's program structure; that today the need for a distinction between live and recorded programs, except where a question of timeliness is material, no longer exists since recorded programming has reached near perfection, the majority of transcribed broadcasts are accepted by the public in the same light as "live" presentations, the bulk of a station's programming is recorded, and the public's awareness of programming techniques is such that listeners could only be misled by deliberate action on the part of the broadcaster. It is pointed out that the

proposed amendment prohibits such affirmative misrepresentation; that the possibility of deliberate deception is remote since it would not work to a station's advantage to mislead its audience into believing recorded program material is live; that, in any case, the Commission could take appropriate action if any such attempt to mislead might be made; and that the few occasions where such an attempt might be made would be outweighed by the elimination of repetitious announcements which have no affirmative value. It is claimed that with the increased use of recorded programming and the trend to small program blocks in radio, the number of recorded announcements required to be made each day has increased to the point where their effectiveness is lost. It is urged that both the public and the broadcasting industry will be served by the elimination of announcements where the public's knowledge whether the program is recorded does not affect the value of the program or make any difference as a matter of public interest, convenience or necessity; that such announcements serve only to cause repetitious interruptions of program continuity and program imbalance; that they are both an annoyance and a distraction to the listener or viewer and a costly and unnecessary burden on broadcast stations, and that they consume broadcast time which can be used by the station and the public to better advantage.

5. Others supporting the proposed amendments claim that it is inconsistent to relax the present rules to the extent of not requiring mechanical recodation announcements with respect to background music in programs and programs of less than one minute duration — thus indicating that the Commission is not concerned whether the public is aware that such programs or components thereof are live or transcribed — and, on the other hand, to require identification of all other forms of mechanically recorded program material. It is likewise claimed that there appears to be no justifiable reason for exempting a station because of daylight saving time differentials from announcement requirements with respect to network programs received on a delayed basis, except for announcements once or twice a day, and, on the other hand, requiring a neighboring station in standard time to announce as mechanically reproduced each program broadcast on a delayed basis for other reasons. Some parties point out that only the broadcaster is now required to label his material as "transcribed"; that other competitive services, such as Muzek, the juke box, the home phonograph, etc., which the Commission does not regulate, are not hampered by mechanical reproduction identification requirements; that newspapers, wire services, foreign correspondence, etc., frequently delay the release of material via press and air and that such material is often treated as not having happened until released, and that the delay between creation and release of material by such services does not adversely affect either the public interest nor public acceptance of the material.

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6. ABC and several of the parties supporting the objectives of the proposed amendment—the confinement of announcements of mechanically reproduced programs to those where the element of time is of special significance and where the public might otherwise be misled—point out that the proposed form of the amendment can be construed as requiring all mechanically reproduced speeches, news events, news commentators, forums, panel discussions and special event programs to be announced as such regardless of whether the element of time is of special significance. They urge that announcement requirements should not be applied flatly to such programs simply because they fall in one of the listed categories but that the amendment should be clarified so that it can be construed only as requiring announcements when the particular program, because of its contents or its participants, might cause the listening or viewing public to be misled unless an accompanying announcement is made. These parties claim that the element of time is not of special significance in every speech, forum or like program and a recordation announcement should not be required if such is the case. It is urged, for example, that there is no reason to require an announcement in a case where a live newscaster's commentary is supplemented by recorded interviews if the manner of presentation precludes the creation of any impression or belief that the recorded events are occurring simultaneously with the broadcast. It is suggested that the necessary clarification be made by changing the punctuation of the pertinent sentence in the proposed amendment or by deleting all reference to specific categories of programs which must be announced as mechanically recorded. It is urged by those favoring the latter modification that it is preferred, with only a general requirement that all mechanically reproduced programs in which the element of time is of special significance be announced, because of the natural tendency to accept illustrations as all-inclusive.

7. While agreeing that the proposed amendment properly restricts the scope of the mechanical reproduction rules to an area that takes into account current broadcasting realities, NBC suggests that, in order to achieve as much flexibility as is consistent with the public interest, any new mechanical reproduction rules should also exempt programs of one minute or less from announcement requirements in the same manner as they are exempted under the present rules; that mechanically reproduced commercial announcements and other political, public service and promotional announcements, even though they exceed one minute in duration, should be exempted completely from any announcement requirements since there is no reason to require such announcements in these matters; and that any new mechanical reproduction rules should give broadcasters the same option as is now present in the television rules to make the requisite announcement of a mechanically reproduced program either at the beginning or at the end of the program. NBC points out that the Commission denied a request in 1950 (Public Notice 48056, Report No. 1639, March 20, 1950) proposing that announcement of the use of mechanical reproductions be required before such a program instead of either before or after, as permitted by the TV rules, since it recognized that a choice was desirable in order to maintain structural balance in programming. Southwest Broadcasters, Inc., suggests that identification announcements of mechanical reproduction be required only once for any programs of five minutes or less in conformity with the present AM and FM rules. It is also suggested that even if the element of time is of significance in programs consisting of news, speeches, etc., identification of mechanical reproduction should not be required unless the

length of the time delay in the recorded presentation of a live program is of such extent that the public interest would require such identification. Southwest points out that it is frequently expedient for it to record and delay network newscasts approximately 30 minutes; that much of the news content of such programs is hours old at the time of the live release, and that it is not essential to the public interest that a recorded delay in the spoken presentation of such newscasts be identified as recorded since the timeliness of the program is little, if any, more affected than if a live release itself were similarly delayed. A number of parties urge that even if certain categories of programs are required to be announced as mechanically reproduced, network programs which are delayed to accommodate daylight saving time or time zone differences should be exempted entirely from any such requirement. Ramford Broadcasting Company suggests that since the vast majority of programs on radio today are entirely transcribed or contain recorded and transcribed music, it would be more realistic for broadcast stations to make announcement of the fact of a "live" program as opposed to the present rule requiring identification of recorded programs.

8. If the NARTB proposal is not adopted, AEC and many other parties who support the NARTB proposal urge that as a minimum, paragraph (a) (6) Section 3.118, should be amended, as proposed, to take care of time zone as well as daylight saving differences across the country by permitting network programs to be delayed up to four hours with only a single daily announcement that such programs are transcribed at an earlier hour for later presentation. They recommend that the amendment also be made applicable to FM, TV and non-commercial educational FM stations also. Some parties suggest that the present and proposed requirement in the waiver that an announcement be made once each day to the effect that all or some network programs are delayed broadcasts by means of transcription where daylight saving time or time zone differences are involved serves no useful purpose and should be deleted. It is argued that years of experience with the daylight saving time waiver have demonstrated that the failure to make separate announcement for programs transcribed and broadcast at a later time because of daylight saving time has worked no injury on the public, stations or the networks and that the public has benefited from the elimination of repetitious announcements and the interruption of programs. It is contended that if the present waiver provision with respect to daylight saving differentials is sound, a similar waiver is equally appropriate to accommodate time zone differences; that the public is as completely aware of the time zone differentials and their effect on radio and TV programs as they are of daylight saving time changes; that the effect upon broadcasting of time zone variances pre-dates the adoption of daylight saving time in some areas and is therefore an even more familiar and accepted technique of American broadcasting; that advertising promotion, and listening habits have educated the public in the various time zones to the fact that leading network shows originating in New York are received via their local stations one, two or three hours later; that the public demands that its local stations carry these network shows on a delayed basis so that the programs are available locally, in comparable leisure time, and that repeated announcements that the program is transcribed for delayed broadcast is of no value and is boring to the average listener or viewer. It is also urged that the provision in the proposed waiver amendment -- that the Commission be advised of any network organization or individual station taking advantage of the waiver -- be eliminated, since public demand and past practice indicate that all broadcasting stations will continue the practice of delaying network programs to adjust for the time zone. It is claimed, therefore that

No

there is no necessity for stations taking advantage of the waiver to advise the Commission, and that such a requirement would be unnecessarily burdensome to both the industry and the Commission.

9. In opposition to the proposed amendment, Charles W. Balthrope, San Antonio, Texas, states that the present requirements of the mechanical reproduction rules are adequate and not excessive; that they have served the broadcasting industry well for many years; that no reason now exists for their change; and that their relaxation might tend to dissipate the intent of these rules as far as proper identification to the listener is concerned. Richard Blanchard Jr., of Hollywood, California, contends that the present announcement requirements of the mechanical reproduction rules are too lax; that stronger rules should be formulated to eliminate all doubt, in all types of shows including time-delayed programs, as to whether a program is live or mechanically reproduced. He urges, in particular, that the television rules be amended to require an announcement both at the beginning and end of a program, as now required by the AM and FM mechanical reproduction rules. He submits that the public is interested in knowing when a program is live or recorded and not in the networks' time problem; that the fact that dramatic and other types of shows are live is a major factor in the public's enjoyment of them, and that too much misleading data concerning mechanically reproduced programs is now broadcast deliberately to give the impression that such programs are live. While of the view that no harm would result from adoption of the proposed NARTB proposal, three broadcasters charge that the major radio networks give only lip service to the identification rules for mechanically reproduced programs by hiding the announcement under loud music, applause, or the like, or by making a statement such as "This is John Doe transcribing from New York"; that this approach is not justified by the facts of public acceptance but is probably done to suit the commercial sensitivities of the advertising agencies, and that it has virtually rendered the public insensible to just what constitutes a mechanical reproduction. These broadcasters state that if the comments received herein indicate a question of candor on the part of licensees with respect to the possible practical—though not technical—violation of the rule, as has become the habit on some network programs, harm might result from adoption of either proposed amendment. However, they state that if the Commission takes strong action to require practical adherence to the rule as finally adopted, the question of adherence will be moot, and the question of concern about the adoption of these amendments will be resolved.

10. The American Federation of Musicians, representing some 252,000 professional musicians in the United States and Canada, opposes the NARTB proposal and any relaxation of the mechanical reproduction rules for the reason that it would augment the practice of presenting mechanically reproduced music as if it were being produced live. The Federation states that it recognizes the great advances made in the art of mechanical reproduction, but it urges that where the techniques of mechanical reproduction are used indiscriminately to destroy the livelihood of musical artists whose abilities are exploited by these techniques, serious problems are raised which warrant the Commission to require all mechanically reproduced musical programs to be announced. It contends that basic to the problem is the impact upon those musicians who

create the music and whose livelihood depends upon the opportunity to create more and more live music; that musicians have been displaced from their chosen profession by the millions of records played in juke-boxes, broadcasting stations, "wired" musical programs and the like so that today less than 75,000 musicians out of a total of more than 252,000 earn the bulk of their living out of music; and that unlike other displaced workers they have no chance of being absorbed in other musical channels. It urges that the future of music in America, as well as the livelihood of musicians, is threatened by the continued advances of mechanized music and that this fact must be forefront in assessing the instant proposal. It urges that an announcement of a recorded musical program serves a necessary function in the musical world by preventing the public from being deceived that it is hearing live music at the time of performance and as a constant reminder that live musicians are not being used. It contends that it is better to irritate a listener to the point of demanding live music than to lull him into any easy acceptance of canned music and all the resulting economic and cultural dislocations. The Federation alleges that to abandon all requirements of revealing the mechanized nature of musical programs will serve to help only the entrepreneurs of musical automation and will cause unemployment for musicians and lessen the opportunity for developing and maintaining real musical culture in America. It urges that the present problem is more than one of encouraging the utilization of live talent by broadcasting stations, which the Commission has recognized as desirable, but that it is one also of preserving and sustaining the talent which we now have; that radio and television stations have "a positive responsibility" not to utilize mechanized music in such a way as to discourage live talent and to blind the public to the human displacements that inevitably result, and that denial of the proposed amendment will further the lessening of the evils of mechanized music.

11. The mechanical records rules were promulgated to protect the listening and viewing public from deception. In former years, mechanically reproduced programs were markedly inferior to live programs, and rules requiring the identification of nearly all mechanical reproductions were necessary to protect the broadcast audience from being led to believe that programs broadcast by mechanical reproduction consist of live talent. As the quality of mechanical recordation has improved and its use by the broadcast services has increased, we have relaxed or modified the mechanical records rules whenever we found that certain identification requirements for mechanical records were unnecessary to keep the listener or viewer reasonably apprised of whether a program was live or mechanically reproduced and when they served only to burden broadcasters unnecessarily or to cause wearisome repetition of announcements which the public for the most part would recognize as such, e.g., programs of one minute or less and programs delayed for one hour because of the daylight saving time differential.

12. The two proposals before the Commission in this proceeding are similar to the proposals for amendment of the AM mechanical recordation rules which were before us in 1946 in Docket No. 7611. The arguments advanced in support of the instant proposals are likewise similar to those which we considered at that time. At the conclusion of the 1946 proceeding we amended

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the AM mechanical reproduction rule only to the extent of permitting the broadcast of transcribed or recorded material of one minute or less without identification. We explained in the Public Notice issued December 6, 1946, that this amendment was made because the requirement of an announcement to identify transcribed or recorded programs of one minute or less "tended to require more interruptions for explanatory announcements than was necessary to avoid deception of the public." Since that time the AM and FM mechanical reproduction rules have not been changed, except for the addition of the footnote to the AM rule in 1947, as amended in 1948, waiving identification requirements with respect to network programs which are transcribed and broadcast one hour later because of the time differential resulting from the adoption of Daylight Saving Time. The Commission was of the view that repeated identification of such delayed broadcasts was burdensome to broadcasters and the public and unnecessary if an appropriate announcement was made at least once daily.

13. The present TV mechanical recordation rule was last amended on November 28, 1945. Unlike the AM and FM rules, which require identifying announcements both before and after programs of a longer duration than 5 minutes and at each 30 minute interval also if longer than 30 minutes, the pertinent television rule requires such an announcement either at the beginning or end of a recorded program regardless of its length, including those one minute or less, which are excepted under the AM and FM rules. In 1950 we denied a request to amend the TV rule to require an identifying announcement at the beginning of a mechanical reproduced program (Public Notice 48056, Rept. No. 1639, March 20, 1950). We pointed out in our decision that, in adopting the television rule, the time when the identifying announcement was to be made was left to the discretion of the licensee so long as the viewer was not left with the impression that a mechanical reproduction consisted of live talent. We recognized that television licensees might prefer to maintain structural balance in their programming by announcing the use of mechanical reproductions at the end of a program instead of before, and we held that no facts were presented which warranted requiring an identifying announcement before a television mechanical recordation.

14. We have carefully considered the many comments filed in this proceeding, and we conclude that they point up the need for making the mechanical records rules for the AM, FM and TV broadcast services uniform and the desirability of additional relaxation in identification requirements along the lines of the NABT and ABC proposals. We are of the view that, in the light of the present broadcast situation, the present identification requirements are too stringent, and to the extent that they are, impose a needless burden on broadcasters and detract from the public's enjoyment of programs. We believe that the general protection afforded by the rules against any affirmative attempt by a licensee to create the impression that any broadcast by mechanical reproduction consists of live talent is adequate to protect the public from harmful deception as to the nature of most programs and that specific requirements as to identification of recorded programs and material at the time of broadcast are needed today only where the element of time is of special significance in such programs. Since the possibility of the public

being misled and the harm that could ensue therefrom is greater with respect to programs in which time is a significant element, the public interest, in our view, still requires that recorded programs in which time is a significant factor be identified and that the question of their identification not be left to the discretion of the licensee. However, we agree with those parties who urge that a general requirement that mechanically reproduced programs in which time is significant be identified is sufficient, and that no specific requirements should be adopted to require identification of all programs falling into the categories (speeches, news events, news commentators, forums, panel discussions, etc.) suggested by the NARTB and other parties. While the element of time is often significant in programs of these types, it is not always the case, and we find no need for requiring the identification of recorded or transcribed programs where the time factor is unimportant simply because they are of a certain type. In our view, station licensees are capable of bearing the responsibility of determining whether mechanically reproduced material or programs falling within the suggested categories require identification because of the time element and the possibility of harmful deception. Therefore, the amendments we are now adopting require that all mechanically reproduced programs in which time is a significant factor, except for the few exceptions noted below, must be identified, but make no requirement that all programs or material of the types enumerated therein must be identified if broadcast by mechanical recordation. The categories of programs set forth in the amendment have been included solely for the purpose of illustrating some of the types of programs in which an identifying announcement may be required; the list is not intended to be all-inclusive, and the question of the identification of programs or material falling within these categories is left to the discretion of the licensee.

15. We are also of the view that only one announcement is necessary to inform the listener or viewer when a mechanical reproduction is being used, and we believe that the question of whether the announcement should be made before or after the use of a mechanical reproduction should also be left to the discretion of the licensee. The television mechanical reproduction rules have permitted licensees to operate under similar requirements for a number of years, and we believe that the NARTB proposal which would require an announcement, both before and after a mechanically reproduced program where the time element is significant, causes more hardship on licensees and interruption of program continuity than is warranted at the present time. We are, therefore, amending the mechanical reproduction rules for all the services to require only one identifying announcement for recorded programs covered by the rules and to make the use of such an announcement at the beginning or end of a mechanical reproduction or program optional with the licensee.

16. Inasmuch as experience in the application of the AM and FM mechanical recordation rules—which for a number of years have excepted recorded or transcribed programs of one minute or less from all identification requirements—has demonstrated that identification of programs or material of this length is unnecessary to prevent deception, we have retained this exception in the new mechanical recordation requirements for AM and FM and made it applicable to the TV mechanical recordation requirements as well. The only other exceptions to the new requirements for mechanical recordings which we

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believe to be warranted cover network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas and network programs delayed as much as three hours because of the time zone differences between the place where the programs originate and where they are rebroadcast. Standard broadcast stations have been operating since 1947 under a provision in the AM mechanical recordation rules waiving identification requirements to accommodate daylight saving time differences and requiring in lieu thereof only a single daily announcement as to all delayed network programs broadcast by means of transcription for this reason. We believe that the daily announcement has proved to be adequate to identify such programs under the circumstances; and we have therefore embodied the waiver provision in all the mechanical recordation rules and we have eliminated the requirement that the Commission be advised of any network or station taking advantage of the waiver. Although consideration was given to the suggestion that the requirement of a daily announcement with respect to programs delayed because of daylight saving time should be deleted entirely or should be required only where the time element is significant, we are convinced that the daily announcement serves a useful purpose and that less confusion and less opportunity for misunderstanding will arise if it is made applicable to all programs delayed because of daylight saving time, particularly when it imposes no great burden on broadcasters. We also believe that there is merit to the proposal of ABC to extend the daylight saving time waiver to accommodate time zone differences, and the new mechanical recordation requirements contain a similar waiver provision with respect to such broadcasts. In light of our experience with the daylight saving time waiver and the long-standing practice of broadcasting stations to delay network programs to adjust for the time zone in order to broadcast them locally at appropriate times, we believe that a requirement that each such program be separately identified is no longer necessary and causes needless program interruption and that a daily announcement will suffice to identify all such delayed programs.

17. Authority for the adoption of the amendments herein is contained in Sections 4(1), 303(f) and 303(r) of the Communications Act of 1934, as amended.

18. In view of the foregoing, IT IS ORDERED, That effective November 7, 1956, Part 3 of the Rules and Regulations IS AMENDED as set forth in the attached Appendix.

FEDERAL COMMUNICATIONS COMMISSION

Attachment: Appendix

Adopted: October 3, 1956

Mary Jane Morris
Secretary

Released: October 8, 1956

NOTE: Rules changes herein will appear in Amendment 3-33.

APPENDIX

1. Section 3.118 is amended to read as follows:

§ 3.118 Mechanical reproductions.

- (a) No mechanically reproduced program consisting of a speech, news event, news commentator, forum, panel discussion, or special event in which the element of time is of special significance, or any other program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the listening audience that the event or program being broadcast is in fact occurring simultaneously with the broadcast, shall be broadcast without an appropriate announcement being made either at the beginning or end of such reproduction or at the beginning or end of the program in which such reproduction is used that it is a mechanical reproduction or a mechanically reproduced program: Provided, however, That each such program of one minute or less need not be announced as such.
- (b) The exact form of identifying announcement is not prescribed, but the language shall be clear and in terms commonly used and understood. Any other program mechanically reproduced or series of mechanical reproductions, including a mechanical reproduction used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.
- (c) The requirements of subsection (a) are waived with respect to network programs, transcribed and rebroadcast at a later hour because of the time zone differentials between the place where the program originates and where it is rebroadcast, this waiver being applicable whether the off-the-line recording is made by the network itself at one of its key stations or by an individual station, but only when the off-the-line recording is for broadcast at an hour not exceeding the time zone differential between the place where the program originates and where it is rebroadcast. Each station which broadcasts network programs at a later hour in accordance with this waiver shall make an appropriate announcement at least once each day between the hours of 10:00 a.m. and 10:00 p.m.,

stating that some or all of the network programs which are broadcast by that station are delayed broadcasts by means of transcription. This waiver provision also applies during the annual periods in which daylight saving time will be effective with respect to network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas.

2. Section 3.288 is amended to read as follows:

§ 3.288 Mechanical reproductions.

- (a) No mechanically reproduced program consisting of a speech, news event, news commentator, forum, panel discussion, or special event in which the element of time is of special significance, or any other program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the listening audience that the event or program being broadcast is in fact occurring simultaneously with the broadcast, shall be broadcast without an appropriate announcement being made either at the beginning or end of such reproduction or at the beginning or end of the program in which such reproduction is used that it is a mechanical reproduction or a mechanically reproduced program: Provided, however, That each such program of one minute or less need not be announced as such.
- (b) The exact form of identifying announcement is not prescribed, but the language shall be clear and in terms commonly used and understood. Any other program mechanically reproduced or series of mechanical reproductions, including a mechanical reproduction used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.
- (c) The requirements of subsection (a) are waived with respect to network programs, transcribed and rebroadcast at a later hour because of the time zone differential between the place where the program originates and where it is rebroadcast, this waiver being appli-

cable whether the off-the-line recording is made by the network itself at one of its key stations or by an individual station, but only when the off-the-line recording is for broadcast at an hour not exceeding the time zone differential between the place where the program originates and where it is rebroadcast. Each station which broadcasts network programs at a later hour in accordance with this waiver shall make an appropriate announcement at least once each day between the hours of 10:00 a.m. and 10:00 p.m., stating that some or all of the network programs which are broadcast by that station are delayed broadcasts by means of transcription. This waiver provision also applies during the annual periods in which daylight saving time will be effective with respect to network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas.

3. Section 3.588 is amended to read as follows:

§ 3.588 Mechanical reproductions.

- (a) No mechanically reproduced program consisting of a speech, news event, news commentator, forum, panel discussion, or special event in which the element of time is of special significance, or any other program in which the element of time is of special significance and presentation of which would create, either intentionally or otherwise, the impression or belief on the part of the listening audience that the event or program being broadcast is in fact occurring simultaneously with the broadcast, shall be broadcast without an appropriate announcement being made either at the beginning or end of such reproduction or at the beginning or end of the program in which such reproduction is used that it is a mechanical reproduction or a mechanically reproduced program: Provided, however, That each such program of one minute or less need not be announced as such.
- (b) The exact form of identifying announcement is not prescribed, but the language shall be clear and in terms commonly used and understood. Any other program mechanically reproduced or series of mechanical reproductions, including a mechanical reproduction used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.

used for background music, sound effects, station identification, program identification (theme music of short duration) or identification of sponsorship of the program proper, need not be announced as provided in subsection (a), but the licensee shall not attempt affirmatively to create the impression that any program being broadcast by mechanical reproduction consists of live talent.

- (c) The requirements of subsection (a) are waived with respect to network programs, transcribed and rebroadcast at a later hour because of the time zone differential between the place where the program originates and where it is rebroadcast, this waiver being applicable whether the off-the-line recording is made by the network itself at one of its key stations or by an individual station, but only when the off-the-line recording is for broadcast at an hour not exceeding the time zone differential between the place where the program originates and where it is rebroadcast. Each station which broadcasts network programs at a later hour in accordance with this waiver shall make an appropriate announcement at least once each day between the hours of 10:00 a.m. and 10:00 p.m., stating that some or all of the network programs which are broadcast by that station are delayed broadcasts by means of transcription. This waiver provision also applies during the annual periods in which daylight saving time will be effective with respect to network programs transcribed and rebroadcast one hour later because of the time differential resulting from the adoption of daylight saving time in some areas.

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initials quarters 10/24/56*

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

In the Matter of)	
)	
Amendment of Part 4 of the)	
Commission's Rules and Regulations)	Docket No. 12116
to permit the operation of Low)	
Power Television Broadcast)	
Repeater Stations)	

COMMENTS OF THE NATIONAL ASSOCIATION
OF EDUCATIONAL BROADCASTERS

The National Association of Educational Broadcasters (NAEB) respectfully submits the following Comments in the above-entitled proceeding:

1. The National Association of Educational Broadcasters is an organization consisting of broadcast stations owned and operated by educational institutions on a non-commercial educational basis. At the present time, it has a membership of 157 radio and television stations or those holding construction permits for facilities, and more than 600 additional individual and associated members. The Association has appeared and presented its views to the Commission in the past on matters which might affect educational broadcasting and the interests of its members.
2. The NAEB respectfully submits that the Commission should take no action which would hinder the future expansion of television operations to the full power and antenna height contemplated in the Commission's Rules. The allocation table is designed so that all facilities listed therein can operate with maximum height and power and thereby provide the best technical service on a nation-wide basis. Obviously, the optimum situation for nation-wide service would be the utilization of every listed channel at full height and power. Although this objective may not be reached immediately, the Commission, because of temporary expediency, should not adopt any proposal which would have the

effect of precluding or rendering much more difficult the attainment of this objective. In the case of educational television, the problem is more acute than in the case of commercial television. For the limited number of television channels reserved for non-commercial educational purposes renders it imperative that each non-commercial educational station ultimately serve the greatest number of persons possible under governing Commission regulations and standards.

3. The interest of the NAEB in this proceeding is to insure that the Commission takes no action which would have the effect of inhibiting the future growth and expansion of educational television service to the American public. In this proceeding that aim coincides completely with the interest of commercial television broadcasters in maintaining the integrity of the Commission's television allocation plan and technical standards so that the best possible television service may be rendered to all of the people of the United States.

4. The proposal made in the instant proceeding for the establishment of Low Power Television Broadcast Repeater Stations, in its present form, might severely inhibit the future expansion of educational television service. As in the case of many commercial television broadcasters, most educational television stations now in operation or under construction are not utilizing the maximum power and antenna height permitted under the Commission's Rules. Thus, of the 28 educational television stations now in operation, only five are operating at maximum power.^{1/} The remaining operating educational television stations operate with

^{1/} These stations are: WAIQ, Andalusia, Alabama; Chan.2; WTIQ, Munford, Alabama, Chan. 7; KTCA-TV, St. Paul, Minnesota, Chan. 2; WUNC-TV, Chapel Hill, North Carolina, Chan. 4; KETA, Oklahoma City, Oklahoma, Chan. 13.

less than maximum power.^{2/} Only one of the educational television stations now under construction (WGTV, Athens, Georgia, on Channel 8) will utilize maximum power. Of the operating educational television stations listed below, only six are in the UHF. It is contemplated that the growth and expansion of educational television will take the form not only of the creation of new stations, but also of the improvement of the facilities of existing stations. The same, of course, is true of commercial television operations.

5. The Commission has previously recognized the importance of maintaining television service to viewers residing within the outer limits of service of television stations as contemplated by the Rules. It has also recognized the desirability of improving service to these persons by increasing the power of existing facilities. In all instances the Commission has pointed out that no changes would be made in minimum mileage separations so as to deprive viewers of such service. This concern was made very clear when rules were considered for UHF satellites in frequencies above Channel 70. The instant proposal itself recognizes the possibility of interference from VHF boosters to the outer limits of service of television broadcast stations, and the Commission initially rejected the proposal for VHF boosters on this ground. Accordingly, the NAB wishes at this time to focus attention on the necessity for providing sufficient safeguards so that there will be no interference if VHF boosters are

2/ These stations are: WBIQ, Birmingham, Ala., Chan. 10; KQED, San Francisco, California, Chan. 9; KRMA-TV, Denver, Colorado, Chan. 6; WTHS-TV, Miami, Florida, Chan. 2; WILL-TV, Urbana, Illinois, Chan. 12; WTTW, Chicago, Illinois, Chan. 11; KLSE, Monroe, Louisiana, Chan. 13; WYES, New Orleans, Louisiana, Chan. 8; WGBH-TV, Boston, Mass., Chan. 2; WTVS, Detroit, Mich., Chan. 56; WKAR-TV, East Lansing, Mich., Chan. 60; KETC, St. Louis, Missouri, Chan. 9; KUON-TV, Lincoln, Neb., Chan. 12; WCET, Cincinnati, Ohio, Chan. 48; WOSU-TV, Columbus, Ohio, Chan. 34; KOAC-TV, Corvallis, Oregon, Chan. 7; WHYY-TV, Philadelphia, Pa., Chan. 35; WQED, Pittsburgh, Pa., Chan. 13; WKNO-TV, Memphis, Tenn., Chan. 10; KUHT, Houston, Texas, Chan. 8; KTCS, Seattle, Wash., Chan. 9; WHA-TV, Madison, Wis., Chan. 21; WMVS-TV, Milwaukee, Wis., Chan. 10.

permitted to the expanded service which may in the future be rendered by existing television stations. The instant proposal does not contain sufficient safeguards for this purpose, and, therefore, the NAEB urges that careful consideration be given to this problem for the reasons set forth in the following paragraphs.

6. At the present time the only protection against interference for television service consists of the Commission's minimum mileage separation requirements. In no case has the Commission deviated from the firm position that the mileage separations, and nothing but the mileage separations, determine the extent of service of a television station. The mileage separations, in turn, are based upon full utilization of the facilities provided in the allocation table. The instant proposal presents the first situation in which the Commission is willing to deviate from this policy, and this proposed deviation contains the seed for adulteration of the television allocation system. For the instant proposal contains a concept of "interference" based on other considerations than mileage separations. Paragraph 8 of the instant Notice of Proposed Rule Making indicates that the power limitation for the proposed service is one which will ensure a minimum amount of interference to other radio services and direct reception from television broadcast stations. However, the proposed rules go further. The proposed Section 4.903 (a) requires a showing by an applicant for a low power VHF booster that it will not cause interference to the reception of any existing broadcast or non-broadcast station. However, interference, as used in this section, is nowhere defined.^{3/} Unless

^{3/} The definition of interference contained in proposed Section 4.903(b) is obviously of no use in applying Section 4.903(a).

a specific definition of interference for use in applying this section is adopted, the Commission runs the risk of serious adverse effect on existing and future television broadcast services. Once the concept of definable interference is adopted, efforts will undoubtedly be made to have it applied in other situations in which television interference might occur. If interference is left undefined, or not specifically related to the low power VHF booster service, it may ultimately result in successful efforts to establish television stations at less than minimum mileage separations.

7. Another serious problem raised by the proposed rules concerns the effect of a VHF booster on possible future improvements of existing television broadcast stations. Section 4.903(c) apparently recognizes the potential effect of VHF booster operation on future improvements of service by existing television broadcast stations insofar as it provides that the VHF booster will not be protected against interference from other classes of television stations. This is indeed a salutary provision, which will ensure that the existence of a VHF booster will not preclude the improvement of existing VHF television broadcast facilities. Section 4.903(d) is apparently concerned with the problem of the interference which might be caused by VHF boosters to future or improved television services. The NAEB interprets Section 4.903(d) as protecting future television broadcast services from interference by existing VHF boosters. However, the language of that subsection is, in this regard, far too ambiguous. This protection must be spelled out in detail. Here, again, the lack of a definition of interference is also of crucial importance. Unless such a definition is provided, the entire television allocation structure will be threatened.

8. It is respectfully urged that if the proponents of the proposed rules can make an adequate technical showing to

warrant the provision of the proposed service, then the proposed Section 4.903 should be amended to provide that any low power television broadcast repeater station must protect not only all existing operations, but all future television broadcast operations authorized by the Commission against interference as defined in that Section. Unless such protection is explicitly written into the rules, it is very possible that the creation of VHF boosters will result in an adulteration of the Commission's Television Allocation Plan, which, in order to bring service to very small groups of persons, may preclude large numbers of persons from receiving adequate television service, particularly from educational television stations.

9. The NAEB recognizes that the Commission has a deep concern about the potential harmful effects of booster operations in the VHF band. That provision of the proposed Section 4.903(c) which attempts to subordinate the VHF booster operation to all other classes of television broadcast stations is obviously an attempt to minimize this potential harm. The NAEB is of the view, however, that such provisions as those just referred to may prove ineffectual in achieving the desired result. Whatever the legal status of VHF boosters might be under the proposed rules, and whatever the rights thus created in the operators of such stations, it is clear that substantial segments of the public may come to rely on the service rendered by VHF boosters. Those people will not be interested in the legal status of the station on whose service they have come to rely, and there would undoubtedly be serious practical problems raised if a VHF booster operation were wiped out by interference from another station, particularly if the signal of the interfering ^{station} was not a usable one in the area receiving booster service. In addition, it is probable that serious legal questions would also be raised, despite the unequivocal provision in the proposed rules.

10. The NAEB is sympathetic with the plight of those persons who reside in areas where the signal of a regular television broadcast station is unusable. Indeed, it is not inconceivable that the expansion of educational television service in the future might require or be substantially aided by the use of VHF boosters. Nevertheless, it is the interest of the public as a whole which must ultimately determine the result of this proceeding, and the NAEB is of the view that the VHF booster is the least desirable of any of the proposed methods for bringing television service to underserved areas. Consequently, it feels that if the Commission authorizes such a service it should be severely restricted in scope in order to prevent degradation of television service generally. For the reasons set forth above, the Commission should restrict VHF boosters to those situations where a clear showing can be made that no other method can attain the desired objective.

Respectfully submitted,

THE NATIONAL ASSOCIATION OF
EDUCATIONAL BROADCASTERS

By _____
Leonard H. Marks

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Cohn and Marks
317 Cafritz Building
Washington 6, D. C.
Its Attorneys

January 15, 1958

NAEB HEADQUARTERS
14 Gregory Hall
Urbana, Illinois

Excerpt from FCC's Amendment to Part 3 of the Commission's Rules to extend CONELRAD to the Noncommercial Educational FM and the International Broadcast Services

Accordingly, It Is ORDERED that Part 3 of the Commission's Rules and Regulations Be AMENDED to include the rules set forth in the Appendix attached hereto, effective January 2, 1957 or on such earlier date as the Commission, by subsequent Order, may designate.

APPENDIX

"Change title of Subpart G to read 'CONELRAD FOR STANDARD, FM, AND TELEVISION BROADCAST STATIONS'."

SUBPART H - CONELRAD FOR NONCOMMERCIAL EDUCATIONAL FM, AND INTERNATIONAL BROADCAST STATIONS.

3.1001 Scope and Objective

(a) This subpart applies to all radio stations in the noncommercial educational FM and the international broadcast services located in the Continental U.S., and is for the purpose of providing for the alerting and operation of radio stations in these services during periods of air attack or imminent threat thereof.

(b) The objective of these CONELRAD rules is to minimize the navigational aid that an enemy might obtain from the electromagnetic radiations from radio stations in the noncommercial educational FM and international broadcast services, while simultaneously providing for a continued radio service under controlled conditions when such operation is essential to the public welfare.

3.1002 Alerting

(a) All radio stations in the noncommercial educational FM and the international broadcast services licensed by the Federal Communications Commission are responsible for making provisions to receive the CONELRAD Radio Alert Message and the CONELRAD Radio All Clear. (As used herein the term "licensed by" includes every form of authority issued by FCC pursuant to which a radio station may be operated, including constructions permits, station licenses, temporary authorizations, etc.)

(b) The CONELRAD Radio Alert will be initiated by the Commanding Officer of the Air Division (Defense) or higher military authority.

(c) The provision of an adequate receiver, to monitor any standard, FM or TV broadcast station either by aural or by automatic means, during all hours of operation of noncommercial educational FM or international broadcast stations, will be considered as compliance with the requirements of paragraph (a) of this section. Other means of receiving the CONELRAD Radio Alert may be authorized by the Federal Communications Commission in special cases.

Note: Every standard, FM and TV broadcast station will be notified of the Radio Alert by telephone calls or by radio broadcasts. Immediately upon receipt of the Radio Alert, each standard, FM and TV broadcast station will proceed as follows on its normally assigned frequency:

- (1) Discontinue the normal program in progress.
- (2) Cut the transmitter carrier for approximately 5 seconds.
(Sound carrier only for television stations).
- (3) Return the carrier to the air for approximately 5 seconds.
- (4) Cut transmitter carrier for approximately 5 seconds.
- (5) Return carrier to the air.
- (6) Broadcast 1,000 cycle (approximately steady state tone for fifteen seconds).
- (7) Broadcast the CONELRAD Radio Alert Message as follows:

"We interrupt our normal program to cooperate in security and Civil Defense measures as requested by the United States Government. This is a CONELRAD Radio Alert. Normal broadcasting will now be discontinued for an indefinite period. Civil Defense information will be broadcast in most areas at 640 and 1240 on your regular radio receiver."

- (8) The CONELRAD Radio Alert Message will then be repeated.

The CONELRAD Radio Alert Message, as set forth in (7) of this note is worded in a manner suitable for reception by the public; however, the message is also the CONELRAD Radio Alert. When this CONELRAD Radio Alert Message is received, all licensees must immediately comply with the CONELRAD operating procedure. The precise CONELRAD Radio Alert Message, above, will be broadcast only in the event of the actual Alert. In the event of a CONELRAD test or drill, broadcast stations will make an announcement that a test or drill is taking place.

3.1003 Operating During a CONELRAD Radio Alert.

(a) Noncommercial educational FM broadcast stations, upon receipt of a CONELRAD Radio Alert, will interrupt the program in progress, and broadcast the CONELRAD Radio Alert Message as in subdivisions (7) and (8) of the note to Section 3.1002. The station will then discontinue its carrier and maintain radio silence for the duration of the CONELRAD Radio Alert.

(b) International broadcast stations, upon receipt of a CONELRAD Radio Alert will interrupt the program in progress, may make a brief sign-off announcement not longer than one minute, and, except for those stations specifically authorized by the Federal Communications Commission to continue transmitting, stations in this service will leave the air and maintain radio silence. Stations in the international broadcast service permitted to continue transmitting will be individually authorized

to transmit by the Federal Communications Commission with concurrence of the Secretary of Defense, and the Director, Office of Defense Mobilization, and will transmit only urgent government broadcasts or messages. The stations' carrier must be removed from the air during periods of no broadcast or message transmissions.

3.1004 Identification

After receipt of a CONELRAD Radio Alert, noncommercial educational FM broadcast and international broadcast stations shall make no station identification either by announcement of regularly assigned call signals or by announcement of geographical location.

3.1005 Radio All Clear

The Radio All Clear will be initiated only by the Air Division (Defense) Commander or higher military authority and will be disseminated over the same channels as the CONELRAD Radio Alert. Radio stations in the Noncommercial Educational FM and the International Broadcast Services may resume normal operating schedules when the CONELRAD Radio All Clear is received, unless otherwise restricted by order of the Commission.

3.1006 Tests

Tests of the CONELRAD alerting and operating systems of the Noncommercial Educational FM and the International Broadcast Services may be conducted at appropriate intervals. Reports of the results of such tests may be required in a form to be prescribed by the Commission.

3.1007 Log Entries

Appropriate entries of all CONELRAD tests, drills or operations shall be made in the station log.

Copied NAEB Hq.
2/22/56 jy

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON 25, D. C.

July 26, 1956

ADDRESS ALL COMMUNICATIONS
TO THE SECRETARY

IN REPLY REFER TO:

11010

Mr. Cecil S. Bidlack
Television Engineer
National Association of
Educational Broadcasters
14 Gregory Hall
Urbana, Ill.

RECEIVED
NAEB HEADQUARTERS

JUL 28 1956

AM
7 8 9 10 11 12 1 2 3 4 5 6

Dear Mr. Bidlack:

This will acknowledge the receipt of your letter of July 24, in which you request a number of copies of INF and Adm. Bulletins No. 1.

INF BULLETIN NO. 1 "Broadcast Application Procedure" was at one time entitled "How to Apply for a Broadcast Station License" and it was published under the latter heading on page 388 in the 1956 Broadcasting-Telecasting Yearbook.

Because the supply of both Bulletins is limited and subject to change, we are sending ten copies each and suggest that you refer individual requests for such material to this office.

Very truly yours,

Dee W. Pincock
Dee W. Pincock,
Acting Secretary

Enclosures

July 24, 1956

Federal Communications Commission
Office of Reports and Information
Washington 25 D. C.

Gentlemen:

Please send me a copy of your prepared statement "How to Apply for a Broadcast Station License." Am I correct in assuming that this is the same material which is published on page 388 in the 1956 Broadcasting-Telecasting Yearbook.

From time to time we receive inquiries from educational institutions who contemplate establishing an educational FM station. Some of these are for 10 watt stations, other contemplate higher power or AM. We are working on the preparation of material to be of help to them, however if the above information is already available we could compile additional information applicable to educational stations to include with your material.

Would it be possible to get 25 copies of the above to have on hand to cover these requests as well as 25 copies of the latest issue of Administrative Bulletin No. 1 so that we could indicate the FCC publications they should have on hand to better meet FCC requirements?

An early reply would be appreciated.

Yours very truly,

Cecil S. Bidlack
Television Engineer

CSE:jmf

ROUGH DRAFT

COMMENTS OF JANSKY & BAILEY, INC., ON BEHALF OF VARIOUS CLIENTS IN
DOCKET NO. 11677 IN THE MATTER OF AMENDMENT OF THE COMMISSION'S
RULES AND REGULATIONS RELATING TO REMOTE CONTROL AND OPERATION

May 15, 1956

JANSKY & BAILEY, INC.
Washington, D. C.

COMMENTS OF JANSKY & BAILEY, INC., ON BEHALF OF VARIOUS CLIENTS IN
DOCKET NO. 11677 IN THE MATTER OF AMENDMENT OF THE COMMISSION'S
RULES AND REGULATIONS RELATING TO REMOTE CONTROL AND OPERATION

Jansky & Bailey, Inc., offers the following comments with respect to the Notice of Proposed Rule-Making in Docket No. 11677 released by the Federal Communications Commission April 12, 1956. In accordance with the Commission's desires, attention is directed to the questions outlined in Sections 8 and 9 of the aforementioned release.

Section 8(1)

"Whether every 6 months during the first 3 years that remote control is authorized, the Commission should require submission of a skeleton proof of performance to show that the antenna system meets the terms of the license, and thereafter the submission of a skeleton proof with each license renewal application;"

It is believed that during the first three years that remote control operation of a directional antenna system is authorized that two skeleton proof of performance checks at six month intervals for the first year should be required, and providing these are satisfactory, then yearly checks would be sufficient to determine compliance with the terms of the license for the remaining part of the period. In the alternative the suggested six month provision would apply. Reports on these checks should include details of corrective measures undertaken and magnitude of departure found to exist from the license criteria, if any. Following this introductory period a skeleton proof of performance should be submitted with each renewal of license application.

Section 8(2)

"Whether the Commission should require the logging of loop current ratios rather than base current ratios and how often readings should be made and logged;"

The logging of loop current ratios and magnitudes hourly should be required rather than base current ratios. The loop current magnitudes would provide a further check on common point impedance stability. Extensive experience has indicated that loop currents may be relied upon to indicate relative radiation magnitudes whereas base current magnitudes are frequently subject to variations with seasonal changes and extremes of weather. Base current magnitudes and ratios should be required to be logged only at weekly inspection intervals to keep a gross check on the possible gradual aging of system tuning components. Where sampling loop systems are not in existence a reasonable time should be allowed for compliance with this requirement.

Section 8(3)

"Whether and how often the Commission should require the logging of phase relations;"

It is submitted that the logging of phase relations should be required only at the time of weekly transmitter plant inspection unless the loop current values as logged hourly indicate a departure in excess of five per cent of the allowable values for the current ratios. In this event both phase and loop currents should be read at hourly intervals at the transmitting location for the period during which a return to non-remote control and operation is necessary.

Section 8(4)

"Whether and to what extent any of the information required to be logged by present or proposed regulations may be logged by automatic recording devices;"

The provisions of Rule 3.39(h) would appear to be sufficiently clear for any operation proposed to be approved and no further suggestions are indicated. However, automatic recording at the transmitter site for

purposes of permanent record and operational checking should not replace required readings at the remote operation point.

Section 8(5)

"Whether and to what extent the Commission should modify the requirements with respect to remote antenna meters, particularly with respect to scale and units in which they are required to be calibrated;"

If the recommended emphasis on loop currents is adopted no changes with respect to the requirements involving remote antenna meters would appear to be necessary.

Section 8(6)

"Whether the Commission should require that remote equipment be capable of providing simultaneous readings of frequency, of modulation and of antenna current at the control point as currently provided by the rules."

It is recommended that sequential observation be permitted for all required readings with the provision that the common point or antenna current be continuously indicated during the interval when readings are not being sampled.

Section 8(7)

"Whether the Commission should require the installation of equipment that will shut down the transmitter when it fails to function within the tolerances prescribed by Commission Rules."

The installation of equipment that will shut down the transmitter automatically when it fails to function within tolerances prescribed should not be required. Automatic control at the remote location is not contemplated and manual operation at the remote location should be shifted to manual

operation at the transmitter site, if necessary. Present rule and provisions would then apply. If faulty operation is indicated, non-remote control and operation and re-calibration of the remote control system employed should be promptly carried out. Experience with remote control systems has indicated that occasionally improper bridging of the telephone line circuits employed or the existence of ground currents or line surge components will result in spurious readings not attributable to the antenna system performance. When such conditions arise engineering judgement should be brought to bear and the system of the control apparatus should be serviced promptly. Whenever possible buried telephone pairs should be used to avoid seasonal weather problems such as lightning and snow damage.

Section 8(8)

"Whether and how often remote meters should be calibrated, and whether such calibration curves should be posted at the control point."

Weekly calibration of remote antenna meters where employed should be sufficient. It is recommended that existing systems should be maintained in this respect to aid in routine inspection and maintenance procedures involving the array. Calibration curves at the remote control point should not be required.

Weekly calibration of the remote control and operation metering circuitry should be carried out during routine maintenance periods. Hourly calibration check provisions inherent in control equipment operation should be observed.

- - -

In the event that the proposed or similar amendments are adopted

each proposal for remote operation with a directional antenna should be accompanied by a sworn statement, by a competent engineer, describing the operational stability of the array. Comments with respect to the data proposed to be required by the Federal Communications Commission in Section 9 are as follows:

Section 9(1)

"Weekly monitoring point readings for one year
prior to the submission of the data."

Monitoring point readings are of value in determining the operational stability of the array. Other measurements which usually exist in a station's record may however be just as important. Reference is made to "Report on Propagation Conditions Affecting Field Intensities at Radio Station WRNL, Richmond, Virginia", dated December 1947 by Delmer C. Ports, which has been previously filed with the Federal Communications Commission. Figure 4 from this engineering report is appended hereto. Other reports previously submitted by Jansky & Bailey, Inc. relating to such conditions, which may occur in certain sections of the country were submitted on behalf of WRNL and dated February 1947 and April 1949. Similar conditions existing at WNBZ, Binghamton, New York are analyzed and treated in reports on file with the Federal Communications Commission dated August 1949, January 1952 and August 1952. Reference is also directed to the paper "Temperature Variations of Ground Wave Signal Intensity at Standard Broadcast Frequencies" by Frederick R. Gracely of the Federal Communications Commission, which appeared in the April 1949 issue of the Proceedings of the Institute of Radio Engineers. While this latter paper deals with greater distances than those of immediate concern it is illustrative of a factor which will probably need to be accounted for as data are analyzed.

The analysis of weekly monitoring point data over a one year period prior to submission of data is one approach. It is suggested, however, that considerable leeway as to this proposal be allowed and that the sufficiency of data be evaluated on the basis of engineering judgement. In any event, in some cases, the variabilities of the propagation medium will have to be sorted out from the array stability factors. In some existing cases, where data of more than a years prior duration is already available, this should be most helpful in making the engineering evaluation required.

Section 9(2)

"Daily base current ratios, loop current ratios, phase relations and common point current readings for a period of 30 days, commencing not more than 60 days prior to the submission of the data. The data should be accompanied by information respecting adjustments of phasing and other tuning of the transmitter and associated equipment it was found necessary to perform in this period."

These requirements represent an adequate amount of data of this sort in the opinion of affiant. In cases where a phase monitor is not required by the station license, loop current data obtained by alternate means would suffice. In cases where no loop current measuring system exists the installation of such a system should be required within a reasonable period. If this portion of the data is taken by use of a phase monitor then phase relation records would be required.

Section 9(3)a

"A complete proof of performance on the directional antenna system if no such proof has been submitted to the Commission within five years from the date of application for remote control operation."

Affiant is in agreement with this provision assuming developments since the last filed proof of performance cast no doubt upon its validity.

Construction of power lines, super-highways or suburban housing developments in the vicinity of directional antenna systems in the past few years have become quite common. If the applicant desires to take advantage of the provisions of the suggested Section then he should be required to submit data showing that no encumbrances to array operation have developed within two miles of the antenna site. The final criteria should be the validity of the antenna radiation in pertinent directions. If a complete proof should be necessary for the establishment of an up to date radiation pattern then it should be required.

Section 9(3)b

"A skeleton proof of performance (a minimum of 3 field intensity measurements including the monitoring point reading on each radial) on the directional antenna system if no complete proof of performance has been submitted to the Commission within 2 years from the date of application for remote control."

It is suggested that if no complete proof of performance has been filed within three years prior to submission of the application for remote control and the desirability of complete proof is not indicated by any of the provisions made under Section 9(3)a a skeleton proof of performance be filed. A minimum of five field strength measurements including the monitoring location, if any, should be made on each radial. Such radial measurements should be compared graphically with the last complete radial data submitted in the prior complete proof of performance and if good correlation with the effective field factor at one mile does not obtain then a complete radial should be run in any such direction. A minimum of five measurements on each radial rather than three will insure a more adequate basis of comparison.

- - -

Affiant has no comments with respect to Conelrad factors and

believes that this is a matter for policy decision by the Federal Communications Commission.

Affiant being duly sworn upon oath deposes and says that he is a radio engineer President of the firm of Jansky & Bailey, Inc., Washington, D. C. He is a registered professional engineer in the District of Columbia.
May 15, 1956

Stuart L. Bailey

[2/10/1957]

NAEB HEADQUARTERS
14 Gregory Hall
Urbana, Illinois

Excerpt from FCC's Amendment to Part 3 of the Commission's Rules to extend CONELRAD to the Noncommercial Educational FM and the International Broadcast Services

Accordingly, It Is ORDERED that Part 3 of the Commission's Rules and Regulations Be AMENDED to include the rules set forth in the Appendix attached hereto, effective January 2, 1957 or on such earlier date as the Commission, by subsequent Order, may designate.

APPENDIX

"Change title of Subpart G to read 'CONELRAD FOR STANDARD, FM, AND TELEVISION BROADCAST STATIONS'."

SUBPART H - CONELRAD FOR NONCOMMERCIAL EDUCATIONAL FM, AND INTERNATIONAL BROADCAST STATIONS.

3.1001 Scope and Objective

(a) This subpart applies to all radio stations in the noncommercial educational FM and the international broadcast services located in the Continental U.S., and is for the purpose of providing for the alerting and operation of radio stations in these services during periods of air attack or imminent threat thereof.

(b) The objective of these CONELRAD rules is to minimize the navigational aid that an enemy might obtain from the electromagnetic radiations from radio stations in the noncommercial educational FM and international broadcast services, while simultaneously providing for a continued radio service under controlled conditions when such operation is essential to the public welfare.

3.1002 Alerting

(a) All radio stations in the noncommercial educational FM and the international broadcast services licensed by the Federal Communications Commission are responsible for making provisions to receive the CONELRAD Radio Alert Message and the CONELRAD Radio All Clear. (As used herein the term "licensed by" includes every form of authority issued by FCC pursuant to which a radio station may be operated, including constructions permits, station licenses, temporary authorizations, etc.)

(b) The CONELRAD Radio Alert will be initiated by the Commanding Officer of the Air Division (Defense) or higher military authority.

(c) The provision of an adequate receiver, to monitor any standard, FM or TV broadcast station either by aural or by automatic means, during all hours of operation of noncommercial educational FM or international broadcast stations, will be considered as compliance with the requirements of paragraph (a) of this section. Other means of receiving the CONELRAD Radio Alert may be authorized by the Federal Communications Commission in special cases.

Note: Every standard, FM and TV broadcast station will be notified of the Radio Alert by telephone calls or by radio broadcasts. Immediately upon receipt of the Radio Alert, each standard, FM and TV broadcast station will proceed as follows on its normally assigned frequency:

- (1) Discontinue the normal program in progress.
- (2) Cut the transmitter carrier for approximately 5 seconds.
(Sound carrier only for television stations).
- (3) Return the carrier to the air for approximately 5 seconds.
- (4) Cut transmitter carrier for approximately 5 seconds.
- (5) Return carrier to the air.
- (6) Broadcast 1,000 cycle (approximately steady state tone for fifteen seconds).
- (7) Broadcast the CONELRAD Radio Alert Message as follows:

"We interrupt our normal program to cooperate in security and Civil Defense measures as requested by the United States Government. This is a CONELRAD Radio Alert. Normal broadcasting will now be discontinued for an indefinite period. Civil Defense information will be broadcast in most areas at 640 and 1240 on your regular radio receiver."

- (8) The CONELRAD Radio Alert Message will then be repeated.

The CONELRAD Radio Alert Message, as set forth in (7) of this note is worded in a manner suitable for reception by the public; however, the message is also the CONELRAD Radio Alert. When this CONELRAD Radio Alert Message is received, all licensees must immediately comply with the CONELRAD operating procedure. The precise CONELRAD Radio Alert Message, above, will be broadcast only in the event of the actual Alert. In the event of a CONELRAD test or drill, broadcast stations will make an announcement that a test or drill is taking place.

3.1003 Operating During a CONELRAD Radio Alert.

(a) Noncommercial educational FM broadcast stations, upon receipt of a CONELRAD Radio Alert, will interrupt the program in progress, and broadcast the CONELRAD Radio Alert Message as in subdivisions (7) and (8) of the note to Section 3.1002. The station will then discontinue its carrier and maintain radio silence for the duration of the CONELRAD Radio Alert.

(b) International broadcast stations, upon receipt of a CONELRAD Radio Alert will interrupt the program in progress, may make a brief sign-off announcement not longer than one minute, and, except for those stations specifically authorized by the Federal Communications Commission to continue transmitting, stations in this service will leave the air and maintain radio silence. Stations in the international broadcast service permitted to continue transmitting will be individually authorized

to transmit by the Federal Communications Commission with concurrence of the Secretary of Defense, and the Director, Office of Defense Mobilization, and will transmit only urgent government broadcasts or messages. The stations' carrier must be removed from the air during periods of no broadcast or message transmissions.

3.1004 Identification

After receipt of a CONELRAD Radio Alert, noncommercial educational FM broadcast and international broadcast stations shall make no station identification either by announcement of regularly assigned call signals or by announcement of geographical location.

3.1005 Radio All Clear

The Radio All Clear will be initiated only by the Air Division (Defense) Commander or higher military authority and will be disseminated over the same channels as the CONELRAD Radio Alert. Radio stations in the Noncommercial Educational FM and the International Broadcast Services may resume normal operating schedules when the CONELRAD Radio All Clear is received, unless otherwise restricted by order of the Commission.

3.1006 Tests

Tests of the CONELRAD alerting and operating systems of the Noncommercial Educational FM and the International Broadcast Services may be conducted at appropriate intervals. Reports of the results of such tests may be required in a form to be prescribed by the Commission.

3.1007 Log Entries

Appropriate entries of all CONELRAD tests, drills or operations shall be made in the station log.

Copied NAEB Hq.
2/22/56 jy

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

In the Matter of)

Amendment of Parts 2 and 3 of)
the Commission's Rules and)
Regulations to revise frequency)
allocations in the Territory of)
Alaska in the band 72-100 Mc)

Docket No. 11559

REPORT AND ORDER

By the Commission:

RECEIVED
NAEB HEADQUARTERS

FEB 17 1956

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1. The Commission has before it for consideration its Notice of Proposed Rule Making issued in this proceeding on December 5, 1955 (FCC 55-1188) and published in the Federal Register on December 12, 1955 (20 FR 9022) proposing to amend Section 3.501 of the Commission's Rules to make available the commercial portion of the FM band (100.1 through 107.9 Mc.) to noncommercial educational FM stations in Alaska.
2. Comments were filed by the National Association of Educational Broadcasters supporting the proposal. No oppositions were filed. The Commission believes that the public interest would be served by finalizing the instant proposal.
3. Authority for the adoption of the amendment is contained in Sections 4 (i), 303 (c), (g) and (r) of the Communications Act of 1934, as amended.
4. In view of the foregoing, IT IS ORDERED, That effective March 12, 1956, Section 3.501 of the Commission's Rules IS AMENDED and the proceedings in this docket are hereby terminated.

- I. Delete the present text preceding the table and substitute the following:

\$3,501 Channels available for assignment.

- (a) The following frequencies, except as provided in paragraph (b) of this section, are available for noncommercial educational FM broadcasting:

II. Add a new paragraph (b) to read as follows:

(b) In the Territory of Alaska, the frequency band 88-100 Mc is allocated exclusively to Government radio services and the non-Government fixed service. The frequencies 88.1 Mc through 91.9 Mc (Channels 201 through 220, inclusive) will not be assigned in the Territory of Alaska for use by noncommercial educational FM broadcast stations; however, frequencies in the 100.1-107.9 Mc (Channels 261 through 300, inclusive) are available for such use.

FEDERAL COMMUNICATIONS COMMISSION

Mary Jane Morris
Secretary

Adopted: February 8, 1956

Released: February 9, 1956

NOTE: Rules changes herein will be included in Amendment No. 3-6.

JCET

RECEIVED
NAEB HEADQUARTERS

Date _____

Referred to _____

DEC 8 1955

for your information

AM PM
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for files

please prepare reply for my signature

please answer direct

please advise me

Please return to _____

Remarks

Cec

*Here are a couple
of items in which you
would be interested.*

Best regards, G. B.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

FCC 55-1197
25602

*have been
adopted*

In the matter of

Amendments to Part 3 of the)
Commission's Rules to extend)
CONELRAD to the Noncommercial) DOCKET NO. 11568
Educational FM and the International)
Broadcast Services.)

NOTICE OF PROPOSED RULE MAKING

1. The Commission has before it the approved CONELRAD Plan for the Noncommercial Educational FM and the International Broadcast Services. This plan was developed in cooperation with licensees, Department of Defense and Director, Office of Defense Mobilization, and government agencies concerned. In order to put this plan into effect it is necessary to modify Part 3 of the Commission's Rules as set forth in the attached Appendix. It is proposed to change the title of the present Subpart G of Part 3 of the rules to read, "CONELRAD FOR STANDARD, FM AND TELEVISION BROADCAST STATIONS." It is further proposed to add a new Subpart H to Part 3 of the Rules as set forth in the attached Appendix.

2. These proposed amendments are promulgated by authority of Sections 303(r) and 606(c) of the Communications Act of 1934 as amended and Executive Order No. 10312 signed by the President December 10, 1951.

3. Any interested party who is of the opinion that the proposed amendments should not be adopted or should not be adopted in the form set forth herein may file on or before January 3, 1956 a written statement or brief setting forth his comments. Comments in support of the proposed amendments may also be filed on or before the same date. Comments or briefs in reply to the original comments may be filed within one week from the last day for filing said original comments or briefs. No additional comments may be filed unless, (1) specifically requested by the Commission, or (2) good cause for the filing of such additional comments is established. The Commission will consider all such comments that are submitted before taking action in this matter, and, if any comments appear to warrant the holding of a hearing or oral argument, a notice of the time and place of such hearing or oral argument will be given.

4. In accordance with the provisions of Section 1.764 of the Commission's Rules and Regulations, an original and 14 copies of all statements, briefs, or comments shall be furnished the Commission

FEDERAL COMMUNICATIONS COMMISSION

Attachment: Appendix
Adopted: November 30, 1955
Released: December 2, 1955

Mary Jane Morris
Secretary

APPENDIX

"Change title of Subpart G to read 'CONELRAD FOR STANDARD, FM AND TELEVISION BROADCAST STATIONS'."

SUBPART H - CONELRAD FOR NONCOMMERCIAL EDUCATIONAL FM AND INTERNATIONAL BROADCAST STATIONS.

3.1001 SCOPE AND OBJECTIVE

(a) this subpart applies to all radio stations in the noncommercial educational FM and the international broadcast services located in the Continental U. S., and is for the purpose of providing for the alerting and operation of radio stations in these services during periods of air attack or imminent threat thereof.

(b) The objective of these CONELRAD rules is to minimize the navigational aid that an enemy might obtain from the electromagnetic radiations from radio stations in the noncommercial educational FM and international broadcast Services, while simultaneously providing for a continued radio service under controlled conditions when such operation is essential to the public welfare.

3.1002 ALERTING

(a) All radio stations in the noncommercial educational FM and the international broadcast services licensed by the Federal Communications Commission are responsible for making provisions to receive the CONELRAD RADIO ALERT message and the CONELRAD RADIO ALL CLEAR. (As used herein the term "licensed by" includes every form of authority issued by FCC pursuant to which a radio station may be operated, including constructions permits, station licenses, temporary authorizations, etc).

(b) The CONELRAD RADIO ALERT will be initiated by the Commanding Officer of the Air Division (Defense) or higher military authority.

(c) The provision of an adequate receiver, to monitor any standard, FM or TV broadcast station either by aural or by automatic means, during all hours of operation of noncommercial educational FM or international broadcast stations, will be considered as compliance with the requirements of paragraph (a) of this section. Other means of receiving the CONELRAD RADIO ALERT may be authorized by the Federal Communications Commission in special cases.

Note: Every standard, FM and TV broadcast station will be notified of the RADIO ALERT by telephone calls or by radio broadcasts. Immediately upon receipt of the RADIO ALERT, each standard, FM and TV broadcast station will proceed as follows on its normally assigned frequency:

- (1) Discontinue the normal program in progress.
- (2) Cut the transmitter carrier for approximately 5 seconds. (Sound carrier only for television stations).
- (3) Return the carrier to the air for approximately 5 seconds.
- (4) Cut transmitter carrier for approximately 5 seconds

- (5) Return carrier to the air.
- (6) Broadcast 1,000 cycle (approximately) steady state tone for fifteen seconds.
- (7) Broadcast the CONELRAD radio alert message as follows:

"We interrupt our normal program to cooperate in security and Civil Defense measures as requested by the United States Government. This is a CONELRAD radio alert. Normal broadcasting will now be discontinued for an indefinite period. Civil Defense information will be broadcast in most areas at 640 and 1240 on your regular radio receiver."

- (8) The CONELRAD radio alert message will then be repeated.

3.1003 OPERATING DURING A CONELRAD RADIO ALERT

(a) Noncommercial educational FM broadcast stations, upon receipt of a CONELRAD radio alert, will interrupt the program in progress, and broadcast the CONELRAD RADIO ALERT MESSAGE as in Section 3.1002 (c)(7) and 3.1002 (c)(8). The station will then discontinue its carrier and maintain radio silence for the duration of the CONELRAD RADIO ALERT.

(b) International broadcast stations, upon receipt of a CONELRAD radio alert will interrupt the program in progress, may make a brief sign-off announcement not longer than one minute, and, except for those stations specifically authorized by the Federal Communications Commission to continue transmitting, stations in this service will leave the air and maintain radio silence. Stations in the international broadcast service permitted to continue transmitting will be individually authorized to transmit by the Federal Communications Commission with the concurrence of the Secretary of Defense, and the Director, Office of Defense Mobilization, and will transmit only urgent government broadcasts or messages. The stations' carrier must be removed from the air during periods of no broadcast or message transmissions.

3.1004 IDENTIFICATION.

After receipt of a CONELRAD radio alert, noncommercial educational FM broadcast and international broadcast stations shall make no station identification either by announcement of regularly assigned call signals or by announcement of geographical location.

3.1005 RADIO ALL CLEAR.

The radio all clear will be initiated only by the Air Division (Defense) Commander or higher military authority and will be disseminated over the same channels as the CONELRAD radio alert. Radio stations in the noncommercial educational FM and the international broadcast services may resume normal operating schedules when the CONELRAD radio all clear is received, unless otherwise restricted by order of the Commission.

3.1006 TESTS.

Tests of the CONELRAD alerting and operating systems of the noncommercial educational FM and the international broadcast services may be conducted at appropriate intervals. Reports of the results of such tests may be required in a form to be prescribed by the Commission.

3.1007 LOG ENTRIES.

Appropriate entries of all CONELRAD tests, drills or operations shall be made in the station log.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

FCC 55-1188

25585

In the Matter of

Amendment of Parts 2 and 3 of the
Commission's Rules and Regulations
to revise frequency allocations in
the Territory of Alaska in the band
72-100 Mc.

Docket No. 11559

NOTICE OF PROPOSED RULE MAKING

1. Notice is hereby given of rule making in the
above-entitled matter.

2. On September 7, 1955, the Commission adopted an Order
(FCC 55-931), effective October 12, 1955, in this proceeding, which,
in part, amended Part 2 and Part 3 of the Commission's Rules so as to
reallocate in the Territory of Alaska only the frequency band 76-100 Mc
for the exclusive use of Government radio services and the non-Government
fixed service. Prior to the adoption of the above Order, this band of
frequencies was available for assignment to FM and TV broadcast stations
in the Territory of Alaska.

3. Among the amendments adopted in the above Order, Sections
3.203 and 3.204 of the Rules were revised so as to prohibit the assignment
of frequencies for FM broadcast stations in the 88.1 Mc through 99.9 Mc
band (Channels 201 through 260) in the Territory of Alaska. Since the only
frequencies allocated for noncommercial educational FM broadcasting in
Section 3.501 of the Rules are 88.1 Mc through 91.9 Mc, and these frequen-
cies are among those which have been reallocated in Alaska, there are now no
frequencies available for noncommercial educational FM broadcast use in
Alaska.

4. The Commission proposes to conform Section 3.501 with Part 2
and Sections 3.203 and 3.204, as revised, and also to provide therein that
the frequencies allotted for commercial FM broadcast use in the 100.1-107.9
Mc band (Channels 261 through 300) will also be available for noncommercial
educational FM broadcasting in Alaska. To date, no FM broadcast assignments
have been made in Alaska, and we are of the view that this band of frequen-
cies can accommodate all the commercial and noncommercial educational FM
broadcast assignments which may be required in Alaska in the future.

5. In view of the foregoing, it is proposed to amend Section 3.501 of the Commission's Rules as follows:

(a) Insert the paragraph designator (a) after the title of Section 3.501.

(b) Add a new paragraph (b) to read as follows:

(b) In the Territory of Alaska, the frequency band 88-100 Mc is allocated to Government radio services and the non-Government fixed service only. The frequencies 88.1 Mc through 91.9 Mc (Channels 201 through 220, inclusive) will not be assigned in the Territory of Alaska for use by non-commercial educational FM broadcast stations; however, frequencies in the 100.1-107.9 Mc band (Channels 261 through 300, inclusive) will be assigned for such use.

6. Authority for the issuance of the proposed amendment is contained in Sections 4(i), 303(c), (g) and (r) of the Communications Act of 1934, as amended.

7. Any interested party who is of the opinion that the amendment proposed should not be adopted, or should not be adopted in the form set forth herein, may file with the Commission on or before January 2, 1956, a written statement or brief setting forth his comments. Comments in support of the proposed amendments may also be filed on or before the same date. Comments or briefs in reply to the original comments may be filed within 10 days from the last day for filing said original comments or briefs. No additional comments may be filed unless (1) specifically requested by the Commission or (2) good cause for the filing of such additional comments is established. The Commission will consider such comments before taking final action in this matter, and if any comments appear to warrant the holding of a hearing or oral argument, notice of the time and place of such hearing or oral argument will be given.

7. In accordance with the provisions of Section 1.764 of the Commission's Rules and Regulations, an original and 14 copies of all statements, briefs, or comments shall be furnished the Commission.

FEDERAL COMMUNICATIONS COMMISSION

Mary Jane Morris
Secretary

Adopted: November 30, 1955

Released: December 5, 1955

RECEIVED
NAEB HEADQUARTERS

JUN 11 1953

Docket No. 11611

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By the Commission: Commissioners Webster and Mack not participating.

4. All interested parties have been afforded the opportunity of submitting comments on the translator proposal. Of the approximately 35 comments filed in the proceeding, only one expresses outright opposition to the authorization of translators. 1/ However, a number of the comments, while generally supporting the proposal, suggest that this proceeding be expanded to encompass other means for providing service to isolated communities or advance suggested revisions to particular provisions. 2/ Upon our

2/ The comments are discussed briefly in the course of the general discussion below.

careful consideration of the comments, we have concluded that the public interest would be served by the authorization of television translators; and we are amending our rules to provide for their establishment. We have, however, incorporated into the rules a number of revisions suggested by the comments filed, as indicated in the course of the discussion below.

5. Comments generally supporting translators were submitted by National Broadcasting Company, Inc., Coastal Bend Television Company (KVDO), Corpus Christi, Texas, the Radio Electronics Television Manufacturers Association (RETHA) and Adler Electronics, Inc., New Rochelle, New York. NBC states that translators will provide an economical method of supplying television service to underserved areas without departing from the allocation plan. Coastal Bend submits that translators will afford a means by which UHF stations can serve "white areas" beyond their normal service range. RETHA, while suggesting several amendments to particular provisions, expresses general support for the translator proposal. Adler Electronics expresses support for translators and notes that it has developed 10 watt equipment for translator use. Adler represents that a model of such equipment is available for type testing and presents technical data with respect thereto. 3/

6. WSM, Inc. (WSM-TV), Nashville, Tennessee, C.J. Community Services, Inc., Bridgeport, Washington, Washington State TV Reflector Association, and Congressman Don Magnuson of the State of Washington suggest that on-channel boosters be authorized in addition to translators as part of a broader scheme for serving outlying areas. C. J. Community Services maintains that by its action the Commission has apparently selected UHF translators as the only feasible method for extending television to isolated areas, and argues that this method alone will not suffice and that proven methods, currently in use, such as on-channel boosters, should also be employed. C. J. Community Services submits that the Commission's obligation to provide for more effective use of radio cannot be discharged merely by translators. The Reflector Association contends that the terrain in Washington east of the Cascades makes direct reception of television service virtually impossible and that unauthorized on-channel boosters have provided a practical solution. Doubts are voiced as to the feasibility of UHF translators in the area. It is argued that since the principal service already there is VHF, UHF would not provide satisfactory coverage in rough terrain, and that the initial cost, as well as maintenance and upkeep, would be prohibitive in light of the technical difficulties inherent in operation in this part of the spectrum. The Association maintains, for these reasons, that limiting authorizations to UHF translators would effectively deprive isolated communities of service. In urging authorization of boosters in addition to translators, Congressman Magnuson refers to the technical difficulties attendant upon operation on the higher UHF channels and notes that boosters would not entail conversion of outstanding sets. He submits that the translator proposal is too limited in scope and should constitute only one facet of a comprehensive, flexible program, which would afford alternative means for bringing service to small communities and would enable each community to select the particular system best suited to its own economic and geographic conditions.

3/ Several other comments also endorse the proposal in part.

7. In our Notice of Rule Making in this proceeding we pointed out that on-channel boosters represent one method of providing unserved areas with television and that the authorization of such boosters was the subject of a separate rule-making proceeding (Docket No. 11331). In that proceeding careful consideration will be given to the feasibility of authorizing boosters, in addition to translators, as a means of providing service to isolated communities, as suggested by the above parties. We are now ready to take final action on translators. The public interest would not be served by withholding this means of bringing service to isolated communities until all problems in the booster proceeding can be resolved. We wish to emphasize, further, that in authorizing translators at this time we are in no way prejudicing any action we may take in the booster proceeding.

8. WSM, Inc., Western Slope Broadcasting Company, Inc. (KFXJ-TV), Grand Junction, Colorado, Archer S. Taylor, Missoula, Montana, C. J. Community Services, Inc., the Washington State TV Reflector Association and Congressman Magnuson urge that translators should not be restricted to the 14 upper UHF channels. They argue that these frequencies may not be well suited for translators because of "ghosting" reflections. Receivers for reception on these channels, they contend, are marked by lack of sensitivity and stability and by a high noise level. The difficulties encountered in operating on these frequencies and the lack of suitable equipment are referred to; and it is argued that such operation would be very expensive. The parties submit that a VHF transmitter would not require conversion of outstanding sets and at the same time would provide a superior service. They argue that VHF translators would be cheaper than UHF and, therefore, would make it economically possible to provide more multiple services to isolated communities. It is accordingly suggested that all UHF channels and the VHF channels should be made available for translator use.

9. We believe the above proposals that translators be authorized on VHF channels and all UHF channels are unsound. They overlook the fact that only by confining translators to the less congested top 14 UHF channels can we find a sufficient number of channels meeting the required protective spacings, and generally relax operating and licensing requirements to make the authorization of translators possible. Also, VHF translators would require extensive engineering measurements to determine interference with existing stations and the use of such channels would be highly inefficient when considered in terms of the overall frequency allocation requirements.

Moreover, we are convinced that Channels 70-83 are completely adequate to meet the needs of the translator service. With respect to the contentions that suitable equipment for operation on Channels 70-83 is lacking, Adler Electronics has represented that equipment is now ready for type testing. We are confident the television industry can furnish low cost equipment to provide satisfactory translator service. While UHF equipment at this stage in its development may be somewhat more expensive than comparable VHF equipment, and UHF translators will necessitate the purchase of UHF receivers or conversion of outstanding sets, these disadvantages are more than offset by the fact that only by confining translators to this band can the operating requirements be sufficiently relaxed to make translator operation economically feasible in small communities.

10. Spencer Kennedy Laboratories, Boston, Massachusetts, and the National Community Television Association urge the Commission to consider the effect that translators would have on established community antenna systems, which have been bringing television service to isolated communities. They submit that these systems provide service to many people and widespread areas at a reasonable fee, and represent a large aggregate investment by local groups and the public. The Association requests the Commission to consider the impact that translators would have on this established and proven method of providing fringe area service; and urges that while community antenna systems should not be protected from competition, the requirements for translators should not be so low that technically and financially unsound translator installations would undermine the ability of community antennas to continue to provide service to the public. Spencer Kennedy urges that because community antenna systems were undertaken in good faith and offer enormous potential to local communities, they should be afforded a breathing space of 3 or 4 years before being subjected to competition from translators. This could be accomplished, it is suggested, by providing that in any community which on March 1, 1956 had a community antenna system, a translator would not be authorized prior to March 1, 1960.

11. We recognize that during these formative years in the development of the television service, community antennas, although not established under Commission authorization, have contributed significantly in providing television reception to isolated areas without service from regular stations. But community antennas do not provide a broadcast service available to the public at large. Their service is limited to subscribers who must pay a fee, and often is not available even at a fee for those members of the community in outlying areas. The Commission, under the Communications Act, is obligated to provide a fair and equitable distribution of television service. We would not be warranted in withholding the authorization of translators, designed to provide television to isolated communities, merely because they would compete with community antennas providing service to some people at a fee. Investments in community antennas were not made on the basis of any assurance that the areas served by them would remain without direct television reception. Such systems have been interim measures, taken without Commission authorization, to provide outlying areas with television until direct reception could be achieved. The public interest would not be served by depriving a community of the privilege of obtaining direct television reception to protect these investments.

12. UMPQUA Radio and Television, Inc., Roseburg, Oregon, supports the translator proposal but suggests that, in addition, the top 14 UHF channels be made available for a "limited or modified common carrier relay system" to provide means for relaying programs from large metropolitan areas to small communities, many miles distant. Archer S. Taylor, Missoula, Montana, proposes, similarly, that translators be authorized to relay signals from a reception point on a mountain to cable distribution systems in small towns as a means of eliminating expensive microwave relays and cable runs. He also suggests that translators could be used to extend service by means of scrambled subscription transmissions to fringe areas not connected to the cable systems.

13. Jerrold Electronics Corporation, Philadelphia, Pa., also proposes a combined use of translators and community antennas. Jerrold submits that there are many areas where the cost of establishing community antennas may be prohibitive and that translators would not solve the problem in such areas because of insufficient financial support. Jerrold contends that since anyone could receive the transmissions of a translator without cost merely by procuring a receiver, there is no well established method for supporting them. Jerrold proposes a combination translator and community antenna system, with the translator used to provide the link between the receiving antenna site and the cable distribution terminal of the community antenna system. Translators would be employed to beam the signals from the point at which originating signals can be received to the center of the community, where they would be distributed by means of a conventional community antenna system. Jerrold submits that under its plan, the translator would provide an economic means of bringing television signals to the centers of population and thus of providing a means of financial support.

14. The Commission's proposal contemplates that translators will operate on the top 14 UHF channels, which have been allocated for broadcasting. Translators will function as broadcast stations, with their transmissions intended for reception by the general public. We do not believe that we would be warranted in authorizing translators, operating on broadcast frequencies, to function as a part of a point-to-point communication service in conjunction with community antennas. The proposals for combined use of translators and community antenna systems involve difficult questions of basic policy, some of which are before the Commission in other proceedings. The public interest would not be served by delaying the establishment of translators until those questions can be resolved, and the proposals for combined use of translators and community antennas are being rejected at this time. 4/

15. On February 14, 1956, Lenkurt Electric Company, San Carlos, California, filed a petition for amendment of Part 18 of the Rules or, alternatively, for reallocation of the 890-940 Mc band to the common carrier fixed service. On April 24, 1956, an engineering study was submitted in connection with this petition. 5/Two of four alternative proposals advanced

4/ To the extent that it can be accomplished under the Rules as adopted herein, a community may use a master antenna to which individual television receivers are connected by cable in lieu of individual receiving antennas for reception of the signals of a television translator station. It is expected that arrangements of this sort may be used to serve small "shadowed" areas in individual communities where a line-of-sight transmission path from a suitable translator site to all parts of the community cannot be found. However, such stations may not be operated so as to deliberately preclude direct reception in areas where such direct reception is feasible.

5/ This study was accompanied by a petition for acceptance of late comments in the present proceeding. It is urged in support of this petition that the preliminary studies leading to formulation of the engineering study had not been completed at the time comments were due in the present proceeding, and because the effect of the study on this proceeding could not then be ascertained, it was not possible to file timely comments. Since it appears that the late filing was not due to lack of diligence, and will not adversely affect expeditious disposition of this matter, the petition for late filing is granted.

therein would require reallocating several of the upper UHF television channels to industrial, scientific and medical use. We are of the view, however, that the proposed translator operation should not be altered merely on the strength of Lenkurt's alternative proposals. The urgent need for television service in isolated communities requires prompt action, and the public interest would not be served by delaying final action on translators until final disposition of the Lenkurt petition. However, our action herein in authorizing the operation of translators on Channels 70-83 is without prejudice to any action on the Lenkurt request that we may find the public interest requires.

16. Several parties urge that translators should be limited to those areas without local television service, and that translators should be required to cease operation in any area after a local station goes on the air. Cascade Broadcasting Company, permittee directly or through subsidiary companies of several television stations in the Pacific Northwest, maintains that the operation of stations in small communities is marginal at best, so that competition from a translator could very easily force such stations out of existence. Archer S. Taylor submits that translators should be prevented from competing with regular television stations and threatening their existence. He voices a fear that an existing station, under the rules as proposed, could use a translator to extend its service for the purpose of competing with other stations, far beyond its normal service area. Columbia Broadcasting System, Inc., submits that translators should be authorized expressly for the purpose of serving "shadow areas" within the normal service area of existing stations, as well as to communities outside such normal service area. To prevent the use of translators for the purpose of extending the normal service area of stations in order to encroach upon areas already receiving multiple signals, CBS suggests that applicants should be required to demonstrate a need for the type of service contemplated.

17. The foregoing comments are concerned with the possibility that translators may be employed to compete with regularly established stations and suggest various rules for avoiding or limiting such use. Translators are intended primarily to provide a means whereby television can be brought to areas without service. Translators could also be employed to bring multiple services to communities too small to support several stations on a regular basis. We recognize that the use of translators in competition with regular stations raises a number of serious questions. Nevertheless, we do not agree that a universal, hard and fast rule governing such situations should be adopted at this time. We believe, rather, that such questions can be more appropriately considered as they arise.

18. Several comments raise the question of the economic feasibility of translators. Spencer Kennedy maintains that since translators would not originate local programs, they will lack an adequate financial base. Archer S. Taylor and the National Community Television Association submit that dependence on voluntary contributions from the public represents an unsatisfactory means for financing. Spencer Kennedy states that inasmuch as the local community will be dependent upon continued translator operation,

applicants should be required to obtain a permit from the community and should be required to deposit in escrow sufficient funds to ensure continued operation for at least 5 years. Archer S. Taylor suggests that translators be authorized to operate on a subscription basis, or be permitted to present local commercials on slides. The Association maintains that translators will cost in excess of \$1000, and urges that applicants should be required to demonstrate that they have made adequate surveys to determine what equipment will be required for satisfactory service and that they have adequate financial resources to construct and operate the stations.

19. We recognize that translators must be adequately financed to ensure their construction and operation during the term of authorization. Nevertheless, we are of the view that the proposed requirements for an appropriate financial showing are adequate for the purpose and that translators can be adequately financed under the proposal. We see no necessity for or desirability in adopting any of the more stringent proposals advanced in the foregoing comments. With respect to the suggestions relating to subscription operation, this general matter is the subject of a separate proceeding (Docket No. 11279). With respect to the suggestions that translators be authorized to introduce local slide commercials, we believe that in this initial stage in their development, translators should be limited to the rebroadcasting of other stations.

20. Western Slope submits that fully automatic and unattended operation should be permitted so long as the manufacturer is required to include protective devices which will prevent radiation when no signal is available or when there is a deviation from the authorized operation or frequency. We believe, however, that in this initial stage, translators should be attended by a qualified operator to insure satisfactory performance. Moreover, translators are engaged in broadcasting and Section 318 of the Communications Act requires that a qualified operator be in attendance of a broadcast operation. But it should be noted, in connection with this general problem, that remote control operation of translators is permitted and, as indicated below, other requirements are being relaxed. The control point, under the rules, need not be manned continuously where suitable automatic devices are provided to deenergize the transmitter. We believe that the rules we are adopting represent the maximum relaxation of supervisory requirements consistent with dependable service and protection of other services.

21. Sylvania Electric Products, Inc., suggests that the proposed rules be modified to permit demodulation and remodulation techniques to be employed in the operation of translators. We have carefully considered this suggestion but are of the view that such techniques would unduly increase the complexity of the transmitting apparatus and would thus necessitate more supervision during operation. The direct frequency conversion method of operation is geared to meet the objective of the present rules: to provide simple, inexpensive apparatus capable of operating with minimum technical supervision and least likely to affect adversely the operation of other stations.

22. The rules as proposed require applicants to list all other translators within a 50-mile radius. RETMA suggests that this requirement be relaxed to specify other translators within 15 miles of the proposed station, urging that this represents a more realistic figure with relation to possible interference. We believe this suggestion has merit and it is being adopted by deleting the provision from the rules and incorporating a requirement for data within 15 miles in the application form.

23. Sylvania suggests that Section 4.702(c) as proposed be clarified to indicate that "channel assignments" as used therein means the channel assignments whether or not in use. This entire provision has been revised in order to clarify its meaning.

24. Several parties advance suggestions for an increase in the maximum power output of translators above the 10 watts proposed. The Washington State TV Reflector Association recommends 31.6 watts; the Citizens of Flathead Valley, Montana, suggest 60 watts; and W&I proposes 100 watts. Upon carefully considering the foregoing suggestions, we have concluded that the 10 watt maximum power requirement should be retained until data based on actual experience with translators operating under a variety of conditions is obtained. Such data will demonstrate whether the maximum power now authorized is adequate, or whether more power is necessary or desirable. The experience obtained in this initial stage will also assist us in evaluating the possible effects that increased power might have on other translators and other services. In retaining the 10 watt maximum, we point out that no limit is placed on the maximum effective radiated power which may be achieved by translators through the use of horizontally or vertically directive transmitting antennas. The use of such antennas will make it possible to concentrate the signals in areas intended to be served.

25. RETMA and Sylvania suggest that the proposed rules should be modified to specify that spurious emissions including radio frequency harmonics should be attenuated no less than 60 db below the visual power of the translator. They maintain that the standards as proposed would tend to increase the cost of the operation, thereby defeating the purpose of translators. We believe this proposal has merit and the rules are being revised accordingly.

26. Sylvania submits that the proposed frequency tolerance of plus or minus 10 kc, or plus or minus 1 kc, if offset, is unduly restrictive since at the highest translator frequency a 10 kc tolerance would require the frequency to be held to .0011%; and Sylvania suggests that the tolerance requirement be relaxed to plus or minus 0.01%. Sylvania urges that there is no commercial equipment available at reasonable prices for achieving such a tolerance as that proposed. Sylvania also submits that offset carrier operation is unnecessary since in light of the low power employed, there should be little inter-translator interference. Upon our study of the foregoing comments, we have concluded that the frequency tolerance proposed may be unnecessarily rigorous, and we are reducing the required tolerance to .01% as urged. We are also deleting all provisions relating to offset carrier operation. Individual licensees, however, may, by mutual agreement, employ offset carrier techniques to meet unusual interference problems within the broader tolerance adopted.

27. WSi submits that Section 4.763(a) should be revised so that each applicant for a translator would be required to show that he has permission to rebroadcast programs sufficient to meet the minimum operating requirements of Section 3.651 of the Commission's rules governing regular television stations. We believe that this suggestion might unduly restrict the development of translators in this developmental stage and it is not being adopted.

28. Western Slope suggests that responsibility for identifying the call letters, frequency and location of translators should be placed with the originating station, and that such identification should be required only at the start and end of the originating station's broadcast day. Western Slope contends that the proposed use of Morse Code for station identification would interrupt program service and annoy viewers and that, because of the limited range of translators, would be of little value for monitoring purposes. We see no need for altering the proposed requirements for station identification. We find little likelihood that these requirements will result in any undue hardship to the translator operator or annoyance to viewers since the identification breaks of the translators will generally coincide with those of the originating station. Furthermore, we do not believe that identification of translators by the originating stations would be practical, and such a procedure would hamper monitoring operations.

29. Section 4.731(b), as proposed, provides that a change in the identity of the station being rebroadcast should, to the extent practicable, be accomplished at such times that interruption or incomplete retransmission of individual programs will not result. Mosby's, Inc. (KGVO-TV), Missoula, Montana, suggests that this requirement be deleted as unnecessary, urging that the provision attempts to compel an operator by rule to employ his best judgment in the operation of a station. This provision has been clarified and the language objected to by Mosby's, Inc. has been deleted.

30. Sylvania suggests that Section 4.734(a) should be modified to include the same restrictive provisions as contained in Section 4.766(a) with regard to the grade of commercial operator license required in order to make the two provisions consistent. We believe this suggestion has merit, and the rules are being revised to make it clear that holders of a temporary limited radio telegraph second class license or an aircraft radio-telephone authorization cannot be in charge at the translator control point.

31. Section 4.734(d) of the proposed rules would require that observations of the signals transmitted by a translator be made at least once each hour. Sylvania, Western Slope and Archie S. Taylor maintain that this requirement would be unduly burdensome and is unnecessary inasmuch as all apparatus will be type tested and presumably capable of stable operation. They point out that since translators may operate from 12 to 16 hours per day, the proposed requirement would entail employment of at least

2 qualified operators, and would thus conflict with the intended objective of providing low cost operation. These parties maintain that because of the low power employed and the automatic devices geared to take the station off the air upon improper operation, there is little likelihood of any harm to other services. We believe the foregoing comments have merit, and we are relaxing our requirements to provide for observations once every 6 hours.

32. Western Slope asserts that the requirement of monitoring by a commercial grade operator will impose hardship in instances where such operators are not available in the community, and submits that where the originating station assumes responsibility for correct operation of the translator, so that the first class operator of the originating station would be available, the hourly monitoring by a commercial grade operator should be waived and any qualified person should be permitted to observe and report to the originating station any deviation from normal service. As noted above, we are relaxing the observation requirements. However, we are of the view that the observations should be made by an operator holding a commercial grade license in order that satisfactory service will be assured.

33. In order to implement our new translator rules, we are adopting FCC Form 346, to be used in making application for a Construction Permit for a Television Broadcast Translator Station. This form and other appropriate forms will be available in the near future.

34. Authority for adoption of the rules herein is contained in Sections 4(i), 301, 303(a), (b), (c), (d), (e), (f), (g), (j), and (r), and 307(b) of the Communications Act of 1934, as amended.

35. In view of the foregoing, IT IS ORDERED, That effective July 2, 1956, the Commission's Rules and Regulations ARE AMENDED as set forth in the attached Appendix.

FEDERAL COMMUNICATIONS COMMISSION

Mary Jane Morris
Secretary

Attachment

Adopted: May 23, 1956

Released: May 24, 1956

NOTE: Rules changes herein will be included in Amendment 4-4.

APPENDIX

Part 4 of the Commission's Rules is amended as follows:

1. The title of the Part is changed to read:

Part 4 - Experimental, Auxiliary, and Special Broadcast Services.

2. Section 4.1 is amended by adding a new paragraph (c) to read as follows:

(c) Special broadcast:

(1) Television broadcast translator (Subpart G).

3. Section 4.11 is amended by adding a new paragraph (c) to read as follows:

(c) If application is for a construction permit for a new television broadcast translator station or to make changes in an existing television broadcast translator station, FCC Form 346 shall be filed, in triplicate; if for a station license, FCC Form 347 shall be filed; if for renewal of station license, FCC Form 348 shall be filed.

4. Section 4.18 is amended by adding a new class of station to the list in paragraph (a) as follows.

Television broadcast translator station: June 1

5. A new subpart G is added to read as follows:

SUBPART G - TELEVISION BROADCAST TRANSLATOR STATIONS

DEFINITIONS AND ALLOCATION OF FREQUENCIES

§ 4.701 Definitions. (a) Television broadcast translator station: A station in the broadcasting service operated solely for the purpose of re-transmitting the signals of a television broadcast station or another television broadcast translator station, by means of direct frequency conversion and amplification of the incoming signals and without significantly altering any characteristic of the incoming signal other than its frequency and amplitude, for the purpose of providing television reception to the general public.

(b) Primary station: The television broadcasting station radiating the signals which are retransmitted by a television broadcast translator station.

§ 4.702 Frequency assignment. (a) An application for a television broadcast translator station shall be specific with regard to the channel requested. One of the following channels may be assigned:

<u>Channel No.</u>	<u>Frequency Band</u>	<u>Visual Carrier Frequency</u>	<u>Aural Carrier Frequency</u>
70	806-812 Mc	807.25 Mc	811.75 Mc
71	812-818 Mc	813.25 Mc	817.75 Mc
72	818-824 Mc	819.25 Mc	823.75 Mc
73	824-830 Mc	825.25 Mc	829.75 Mc
74	830-836 Mc	831.25 Mc	835.75 Mc
75	836-842 Mc	837.25 Mc	841.75 Mc
76	842-848 Mc	843.25 Mc	847.75 Mc
77	848-854 Mc	849.25 Mc	853.75 Mc
78	854-860 Mc	855.25 Mc	859.75 Mc
79	860-866 Mc	861.25 Mc	865.75 Mc
80	866-872 Mc	867.25 Mc	871.75 Mc
81	872-878 Mc	873.25 Mc	877.75 Mc
82	878-884 Mc	879.25 Mc	883.75 Mc
83	884-890 Mc	885.25 Mc	889.75 Mc

(b) An applicant for a television broadcast translator station shall endeavor to select a channel on which its operation will not cause interference to other television broadcast translator stations.

(c) A channel listed in paragraph (a) of this section will not be assigned to a television broadcast translator station located:

- (1) within 20 miles of a television broadcast channel assignment on the second, third, fourth, fifth, or eighth channel below or above the requested channel;

- (2) within 55 miles of a television broadcast channel assignment on an adjacent channel;
- (3) within 60 miles of a television broadcast channel assignment on the seventh channel above or below or the fourteenth channel below the requested assignment;
- (4) within 75 miles of a television broadcast channel assignment on the fifteenth channel below the requested assignment;
- (5) within 155 miles of a television broadcast channel assignment on the same channel as that requested for the television broadcast translator station.

The distances specified above in this paragraph are to be determined with respect to channels having the above relationship, between the proposed site of the television broadcast translator station and the Post Office location in any city listed in Section 3.606 of the Commission's Rules unless the channel shown therein has been assigned to a television broadcast station, in which case the distance shall be determined between the proposed site of the translator and the transmitter site of the television broadcast station. Changes in the Table of Assignments of Section 3.606(c) may be made without regard to existing or proposed television broadcast translator stations and where such changes result in minimum separations less than those specified above, the licensee of an affected television broadcast translator station shall file an application for a change in channel assignment to comply with the required separations.

(d) No minimum distance separation is specified between television broadcast translator stations operating on the same channel. However, the separation shall in all cases be adequate to prevent mutual interference. Adjacent channel assignments will not be made to television broadcast translator stations intended to serve all or a part of the same area.

§ 4.703 Interference. (a) An application for a new television broadcast translator station or for changes in the facilities of an existing station will not be granted where it is apparent that mutual interference will result within the area or areas intended to be served by such stations. In general, the licensee of a new television broadcast translator station shall protect existing television broadcast translator stations from interference resulting from its operation.

(b) It shall be the responsibility of the licensee of a television broadcast translator station to correct any condition of interference which results from the radiation of radio frequency energy by its equipment on any frequency outside the assigned channel. Upon notice by the Commission to the station licensee or operator that such interference is being caused, the operation of the television broadcast translator station shall be suspended immediately and shall not be resumed until the interference has been eliminated, or it can be demonstrated that the interference is not due to spurious emissions by the television broadcast translator station: Provided, however,

that short test transmissions may be made during the period of suspended operation to check the efficacy of remedial measures.

(c) In each instance where suspension of operation is required, the licensee shall submit a full report to the Commission after operation is resumed, containing details of the nature of the interference, the source of the interfering signals, and the remedial steps taken to eliminate the interference.

ADMINISTRATIVE PROCEDURE

§ 4.711 Administrative procedure. See Sections 4.11 to 4.23 inclusive.

LICENSING POLICIES

§ 4.731 Purpose and permissible service. (a) Television broadcast translator stations provide a means whereby the signals of television broadcast stations may be retransmitted to areas in which direct reception of such television broadcast stations is unsatisfactory due to distance or intervening terrain barriers.

(b) A television broadcast translator station may be used only for the purpose of retransmitting to the general public, on one of the channels provided herein, the signals of a television broadcast station, or of another television broadcast translator station operating on a channel other than the one on which the retransmission is made. The retransmitted signals shall not be significantly altered as to content or technical characteristics other than in frequency and amplitude.

(c) A television broadcast translator station may retransmit the signals of different television broadcast stations or different television broadcast translator stations during different periods of its operation in order to provide programs best suited to the needs of a particular community.

(d) Retransmission of the signals of any station shall be made only in accordance with the provisions of Section 4.784.

§ 4.732 Eligibility and licensing requirements. (a) A license for a television broadcast translator station may be issued to any qualified individual, organized group of individuals, broadcast station licensee, or local civil governmental body upon an appropriate showing that plans for financing the installation and operation of the station are sufficiently sound to insure continuation of the operation for the period of the license.

(b) More than one television broadcast translator station may be licensed to the same applicant whether or not such stations serve substantially the same area, upon an appropriate showing of need for such additional stations.

(c) Only one channel will be assigned to each television broadcast translator station. Additional television broadcast translator stations

may be authorized to provide additional reception. A separate application is required for each television broadcast translator station and each application shall be complete in all respects.

§ 4.733 (Reserved)

§ 4.734 Remote control operation. (a) A television broadcast translator station may be operated by remote control, provided that such operation is conducted in accordance with conditions set forth in Sub-paragraphs (1) through (5) of this paragraph.

- (1) The control point shall be located on premises under the control and supervision of the licensee or its agent. Facilities shall be provided at the control point to enable the operator to observe the transmissions of the television broadcast translator station at any time, and which will permit the operator to turn the transmitter on and off at will.
- (2) An operator holding a commercial radio operator's license of any class issued by the Commission except a Temporary Limited Radio Telegraph Second Class License or an Aircraft Radiotelephone Operator Authorization, shall be in charge of this control point and shall observe the transmissions of the television broadcast translator station at the control point within one hour after the start of any period of operation and during operation at intervals of no more than six hours. The operator in charge shall promptly correct any condition of improper operation observed and if unable or not qualified to do so under the provisions of Section 4.750 (d), shall immediately suspend operation until suitable repairs can be made.
- (3) A carrier operated device shall be installed at the control point which shall give a continuous visual indication whenever the transmitter is radiating; or, in lieu thereof, a device shall be provided which will give a continuous visual indication when any transmitter control circuits have been placed in a condition to produce radiation.
- (4) The control circuits shall be so designed and installed that failure of any part of the circuit which results in loss of control from the remote control point will place the transmitter in an inoperative condition.

- (5) The transmitter and its associated controls shall be so installed and protected that they are not accessible to other than duly authorized persons.

(b) In the event that the control point is not continuously manned by a qualified operator, the transmitter shall be equipped with suitable automatic devices which will place it in an inoperative condition when no signal is available for retransmission. In addition to the automatic and manual controls, a television broadcast translator station may be turned on and off by a time switch.

(c) If remote control is proposed at a new television broadcast translator station, the application for construction permit shall be accompanied by a showing as to the manner of compliance with the above conditions. Any proposal to change a television broadcast translator station from direct control to remote control shall be submitted in the form of an application for modification of existing authorization accompanied by the above showing of compliance.

§ 4.735 Power limitations. (a) A television broadcast translator station will not be authorized to operate with transmitter power output in excess of the rated power output of the transmitter and in no event shall the rated peak visual power output of the transmitter be in excess of 10 watts. The power output of a television broadcast translator station is considered to be the product of the direct current and voltage applied to the plate circuit of the final radio frequency amplifier multiplied by an efficiency factor supplied by the manufacturer.

(b) No limit is placed upon the effective radiated power which may be obtained by the use of horizontally or vertically directive transmitting antennas.

§ 4.736 Emissions and bandwidth. (a) The license of a television broadcast translator station authorizes the transmission of the visual signal by amplitude modulation (AM) and the accompanying aural signal by frequency modulation (FM).

(b) Standard width television channels will be assigned and the emissions of a television broadcast translator station shall be confined to the authorized channel in accordance with the Television Technical Standards contained in Part 3, Subpart E of this chapter.

(c) Spurious emissions, including radio frequency harmonics, more than 3 Mc above or below the upper and lower edges, respectively, of the assigned channel shall be attenuated no less than 60 decibels below the visual transmitter power. Greater attenuation will be required if such spurious emissions cause interference to any radio service.

§ 4.737 Antenna location. (a) An applicant for a new television broadcast translator station or for a change in the facilities of an existing station shall endeavor to select a site which will provide a line-of-sight transmission path to the entire area intended to be served and at which there is available a suitable signal from the primary station or stations. The transmitting antenna should be placed above growing vegetation and trees lying in the direction of the area intended to be served to minimize the possibility of signal absorption by foliage.

(b) A site within 5 miles of the area intended to be served is to be preferred if the conditions in paragraph (a) of this Section can be met.

(c) Consideration should be given to accessibility of the site at all seasons of the year and to the availability of facilities for the maintenance and operation of the television broadcast translator station.

(d) The transmitting antenna should be located as near as is practical to the transmitter to avoid the use of long transmission lines and the associated power losses.

(e) Consideration should be given to the existence of strong radio frequency fields from other transmitters at the translator site and the possibility that such fields may result in the retransmission of signals originating on frequencies other than that of the primary station.

EQUIPMENT

§ 4.750 Equipment and installation. (a) An application for construction permit for a new television broadcast translator station or for changes in the facilities of an existing station shall specify equipment which has been type approved by the Commission.

(b) Type approval will be granted only after tests have been made at the Commission's Laboratory, Laurel, Maryland. Manufacturers may submit a production model for type approval and such approval, if granted, will be considered to apply to all identical models manufactured under that type number. No change, either mechanical or electrical, may be made in any type approved apparatus without prior approval of the Commission upon appropriate application therefor. Type approval may be withdrawn at any time if the apparatus fails to meet the requirements under which type approval was granted.

(c) Type approval will be granted only if the apparatus meets the following requirements;

- (1) The frequency converter and associated amplifiers shall be so designed that the electrical characteristics of the incoming signal will not be altered significantly upon retransmission except as to frequency and amplitude.

- (2) The overall characteristics of the apparatus shall be such that emissions on any discrete frequency more than 3 Mc above or below the upper and lower limits respectively, of the assigned channel shall be attenuated no less than 60 decibels below the visual transmitted power, regardless of whether such emissions are generated within the translator or are produced as the result of an external signal introduced into the input circuits of the translator apparatus.
- (3) The local oscillator employed in the frequency converter shall be sufficiently stable that, subject to variations in ambient temperature between -15° and $+55^{\circ}$ Centigrade and power main voltage variations of 15%, its frequency will not vary more than 0.01 percent.
- (4) The translator shall be so designed and adjusted that its overall characteristics will remain essentially linear under all conditions of operation. It shall be equipped with suitable automatic circuits to maintain a constant output under conditions where the intensity of the received signal varies 20 decibels. If a manual adjustment is provided to compensate for differing average signal intensities which may be encountered in various locations and installations, provision shall be made for determining the proper setting of the manual adjustment by means of a meter or meter jack to measure direct current of voltage of appropriate circuits in the translator. If improper adjustment of the manual control could result in improper operation of the translator, a label shall be affixed at the adjustment control bearing a suitable warning.
- (5) The tube or tubes employed in the final radio frequency amplifier shall be of the proper rating to supply the rated power output. The rated maximum peak visual power output of the translator shall not be greater than 10 watts.
- (6) The apparatus shall be equipped with suitable automatic devices which will place it in an inoperative condition in the absence of a visual and aural signal from the primary station. Such automatic devices may be provided with reasonable time constants to prevent momentary failures of the incoming signal from interrupting the operation.
- (7) In general, the transmitter shall be mounted on racks and panels or in totally enclosed frames protected as required by Article 310 of the National Electrical Code.

- (8) (i) Any manufacturer desiring to submit a translator for type approval shall supply the Commission with full specification details (two sworn copies) as well as the test data specified in this section. If this information appears to meet the requirements of the Rules, shipping instructions will be issued to the manufacturer. The shipping charges to and from the Laboratory at Laurel, Maryland, shall be paid for by the manufacturer. Approval of a translator will only be given on the basis of the data obtained from a sample translator submitted to the Commission for test.

(ii) In approving a translator upon the basis of the tests conducted by the Laboratory, the Commission merely recognizes that the type of translator has the inherent capability of functioning in compliance with the Rules, if properly constructed, maintained, and operated.

(iii) Additional Rules with respect to withdrawal of type approval, modification of type approval equipment, and limitations on the findings upon which type approval is based are set forth in Part 2, Subpart F, of the Commission's Rules.

(d) The installation of a television broadcast translator station shall be made only by, or under the direct supervision of, a qualified electronics engineer, and any repairs or adjustments made during or subsequent to the installation, which could result in improper operation, shall be made by or under the direct supervision of an operator holding a valid first or second class radiotelephone operators license issued by the Commission.

(e) The choice of transmitting and receiving antennas is left to the discretion of the applicant. In general, the transmitting antenna should be designed to provide maximum signal over the area intended to be served and to minimize radiation over other areas, particularly those in which interference could be caused to the reception of other stations. The Commission reserves the right to require the use of a suitable directive transmitting antennas in order to permit the assignment of the same channel to two or more television broadcast translator stations located in the same general area. An application for construction permit for a new television broadcast translator station, or for changes in the facilities of an existing station, shall supply complete details of the proposed receiving and retransmitting antenna systems, including an accurate plot of the field pattern of the transmitting antenna, if directive.

§ 4.751 Equipment changes. (a) No change, either mechanical or electrical, may be made in type approved apparatus except upon instructions of the manufacturer of the equipment, based upon Commission approval for the change granted to the manufacturer in accordance with Section 4.750(b).

(b) Formal application (FCC Form 346) is required for any of the following changes:

- (1) Replacement of the transmitter as a whole, except by one of an identical type.
- (2) A change in the transmitting antenna system, including the direction of radiation, directive antenna pattern, or transmission line.
- (3) An increase in the overall height of the antenna above ground of more than 20 feet or which will result in an overall height above ground of more than 170 feet.
- (4) A change of the control point of a remotely controlled television broadcast translator station or any change in the control circuits.
- (5) Any change in the location of the transmitter except a move within the same building or upon the same tower or pole, and any horizontal change in the location of the transmitting antenna in excess of 500 feet.
- (6) A change of frequency assignment.
- (7) A change of authorized operating power.
- (8) A change of the primary TV station or stations being retransmitted.

(c) Other equipment changes not specifically referred to above may be made at the discretion of the licensee, provided that the Engineer in Charge of the radio district in which the television broadcast translator station is located and the Commission's Washington, D. C. office, are notified in writing upon completion of such changes, and provided, further, that the changes are appropriately reflected in the next application for renewal of license of the television broadcast translator station.

TECHNICAL OPERATION

§ 4.761 Frequency tolerance. The licensee of a television broadcast translator station shall maintain the visual carrier frequency and the aural center frequency at the output of the translator within 0.01 percent of its assigned frequencies when the primary station is operating exactly on its assigned frequencies. This tolerance shall not be exceeded at times when the primary station is not on its assigned frequencies, by more than the amount of the departure by the primary station.

§ 4.762 Frequency monitors and measurements. (a) The licensee of a television broadcast translator station is not required to provide means for measuring the operating frequencies of the transmitter. However, only equipment having the required stability will be approved for use at a television broadcast translator station.

(b) In the event that a television broadcast translator station is found to be operating beyond the frequency tolerance prescribed in Section 4.761, the licensee shall promptly suspend operation of the translator and shall not resume operation until the translator has been restored to its assigned frequencies. Adjustment of the frequency determining circuits of a television broadcast translator station shall be made only by a qualified person in accordance with Section 4.705(d) of these Rules.

(c) The licensee of a television broadcast translator station may, at its discretion, provide means for comparing the frequency of the translator with an external frequency source of known accuracy as a preventive measure to avoid unnecessary interruptions to service.

§ 4.763 Time of operation. (a) A television broadcast translator station is not required to adhere to any regular schedule of operation. However, the licensee of a television translator station is expected to provide a dependable service to the extent that such is within its control and to avoid unwarranted interruptions to the service provided.

(b) If causes beyond the control of the licensee require that a television broadcast translator station remain inoperative for a period in excess of 10 days, the Engineer in Charge of the radio district in which the station is located shall be notified promptly in writing, describing the cause of failure and the steps taken to place the station in operation again, and shall be notified promptly when the operation is resumed.

(c) Failure of a television broadcast translator station to operate for a period of 30 days or more, except for causes beyond the control of the licensee, shall be deemed evidence of discontinuance of operation and the license of the station will be cancelled.

(d) A television broadcast translator station shall not be permitted to radiate during extended periods when signals of the primary station are not being retransmitted.

§ 4.764 Station inspection. The licensee of a television broadcast translator station shall make the station and the records required to be kept by these Rules, available for inspection by representatives of the Commission.

§ 4.765 Posting of station and operators licenses. (a) The station license and any other instrument of authorization or individual order concerning the construction of the equipment or manner of operation shall be posted in a conspicuous place in the room in which the transmitter is located so that all terms thereof are visible; Provided:

(1) If the transmitter is operated by remote control pursuant to Section 4.734, the station license shall be posted in the above described manner at the control point.

(2) If the transmitter is installed so as to be exposed to the elements and posting of the license would result in its being so exposed, the license or a photo copy thereof may be kept in the possession of the operator in charge of the transmitter. If a photo copy is used, the original license shall be conveniently available for inspection by a representative of the Commission.

(b) The original of each station operator license shall be posted at the place where he is on duty: Provided, however, That if the original license of a station operator is posted at another radio transmitting station in accordance with the Rules governing that class of station and is there available for inspection by a representative of the Commission, a verification card (Form 758-F) is acceptable in lieu of the posting of such license: Provided, further, however, That if the operator in charge holds a restricted radiotelephone operator permit of the card form (as distinguished from the diploma form), he shall not post that permit but shall keep it in his personal possession.

§ 4.766 Operator requirements. (a) The actual operation of the transmitting apparatus at a television broadcast translator station shall be carried on only by a person holding a valid commercial radio operators license or permit of any class issued by the Commission except a Temporary Limited Radiotelegraph Second-Class License or an Aircraft Radiotelephone Operator Authorization, who shall provide supervision to no less extent than that required by Section 4.734 of these Rules, and who shall be responsible for the proper operation of the apparatus with respect to those functions under his control. This responsibility, however, shall in no way relieve the licensee of its responsibility for the proper operation of the station.

(b) Any repairs or adjustments to a television broadcast translator station which might result in improper operation of the equipment shall be made only by or under the direct supervision of a person holding a valid first or second class radiotelephone operators license issued by the Commission.

(c) The licensed operator on duty and in charge of a television broadcast translator station may, at the discretion of the licensee, be employed for other duties or for the operation of another station or stations in accordance with the class of license which he holds and the Rules and Regulations governing such stations. However, such duties shall in no wise interfere with the operation of the television broadcast translator station.

§ 4.767 Marking and lighting of antenna structures. The marking and lighting of antenna structures employed at a television broadcast translator station, where required, will be specified in the authorization issued by the Commission. Part 17 of the Commission's Rules sets forth the conditions under which such marking and lighting will be required and the responsibility of the licensee with regard thereto.

§ 4.768 Additional orders. In case the Rules contained in this part do not cover all phases of operation or experimentation with respect to external effects, the Commission may make supplemental or additional orders, in each case as may be deemed necessary.

§ 4.769 Copies of Rules. The licensee of a television broadcast translator station shall have current copies of Part 3, Part 4, and Part 17 of the Commission's Rules available for use by the operator in charge, and is expected to be familiar with those Rules relating to the operation of a television broadcast translator station. Copies of the Commission's Rules may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., at nominal cost.

OPERATION

§ 4.781 Station records. (a) The licensee of a television broadcast translator station shall maintain an operating log showing the following:

(1) Hours of operation.

(2) Call letters, channel, and location of primary station or stations.

(3) Time of periodic observation required by Section 4.734(d), and operating conditions; signed by the operator making the observation.

(4) A record of all repairs, adjustments, maintenance, tests, and equipment changes, showing the date of such events, the name and qualifications of the person performing the operation, and a brief description of the matter logged.

(b) Where an antenna structure is required to be illuminated, see Section 17.38, Recording of tower light inspections in the station record, of Part 17 of this chapter.

(c) The operating log shall be made available upon request to any authorized representative of the Commission.

(d) Station records shall be retained for a period of two years.

§ 4.782 (reserved)

§ 4.783 Station identification. (a) The call sign of a television broadcast translator station shall be transmitted in international Morse Code by means of an automatic keying device, at the beginning and end of each period of operation and during operation, within 5 minutes of the hour and half hour. This transmission may be accomplished either by turning the visual and aural carriers of the translator on and off in the proper sequence or by superimposing an audio frequency tone containing the telegraphic identification, on the visual and aural carriers radiated by the translator. The modulation level of the identifying signal shall not be less than 30 percent of the aural signal.

(b) The Commission may, in its discretion, specify other methods of identification.

(c) Call signs for television broadcast translator stations will be made up of the initial letter K or W followed by the channel number assigned to the translator and two letters. The use of the initial letter will generally follow the pattern used in the broadcast service, i.e., stations west of the Mississippi River will be assigned an initial letter K and those east of the Mississippi River the letter W. The two letter combinations following the channel number will be assigned in order and requests for the assignment of particular combinations of letters will not be considered.

§ 4.784 Rebroadcasts. (a) The term "rebroadcast" means the reception by radio of the programs or other signals of a radio or television station and the simultaneous or subsequent retransmission of such programs or signals for direct reception by the general public.

(b) The licensee of a television broadcast translator station shall not rebroadcast the programs of any television broadcast station or other television broadcast translator station without obtaining prior consent of the station whose signals or programs are proposed to be retransmitted. The Commission shall be notified of the call letters of each station rebroadcast and the licensee of the television broadcast translator station shall certify that express authority has been received from the licensee of the station whose programs are retransmitted.

(c) A television broadcast translator station is not authorized to rebroadcast the transmissions of any class of station other than a television broadcast station or another television broadcast translator station.

6. The following is added to the Table of Contents:

SUBPART G - TELEVISION BROADCAST TRANSLATOR STATIONS

DEFINITIONS AND ALLOCATION OF FREQUENCIES

- 4.701 Definitions
- 4.702 Frequency Assignment
- 4.703 Interference

ADMINISTRATIVE PROCEDURE

- 4.711 Administrative Procedure

LICENSING POLICIES

- 4.731 Purpose and Permissible Service
- 4.732 Eligibility and Licensing Requirements
- 4.733 (Reserved)
- 4.734 Remote Control Operation
- 4.735 Power Limitations
- 4.736 Emission and Bandwidth
- 4.737 Antenna Location

EQUIPMENT

- 4.750 Equipment and Installation
- 4.751 Equipment Changes

TECHNICAL OPERATION

- 4.761 Frequency Tolerance
- 4.762 Frequency Monitors and Measurements
- 4.763 Time of Operation
- 4.764 Station Inspection
- 4.765 Posting of Station and Operator's Licenses
- 4.766 Operator Requirements
- 4.767 Marking and Lighting of Antenna Structures
- 4.768 Additional Orders
- 4.769 Copies of Rules

OPERATION

- 4.781 Station Records
- 4.782 (Reserved)
- 4.783 Station Identification
- 4.784 Rebroadcasts

file
January 3, 1956

FCC Technical Research Division
Room 7353
New Post Office Building
Washington 25, D. C.

Gentlemen:

Please send me a copy of your revised T.R.R. Report No. 2.4.15 titled Present Knowledge of "Propagation in VHF and UHF TV Bands." If there is a charge for this paper please inform me so that I may send money order to cover same.

Yours very truly,

Cecil S. Bidlack
Television Engineer

CSB:jy

Received
1-9-56

file FCC

October 17, 1955

Federal Communications Commission
Washington 25, D. C.

ATTENTION: Mary Jane Morris

Dear Miss Morris:

IN RE: 6142

Thank you for the loan of Part B. of the Radio Equipment List. I have had a photostatic copy made and am returning the list to you as you requested in your letter of October 12.

Yours very truly,

Cecil S. Bidlack
Television Engineer

CSB:cr
Encl.

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON 25, D. C.

October 12, 1955

ADDRESS ALL COMMUNICATIONS
TO THE SECRETARY

IN REPLY REFER TO:

6142

National Association of Educational Broadcasters
14 Gregory Hall
Urbana, Illinois

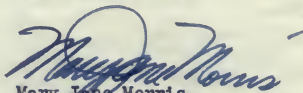
Att: Cecil S. Bidlack

Gentlemen:

Enclosed is the copy of Part B of the Radio Equipment List
requested by your letter of September 28, 1955.

This list is being furnished on a loan basis and should be
returned within 30 days.

Very truly yours,


Mary Jane Morris,
Secretary

RECEIVED
NAEB HEADQUARTERS

OCT 13 1955

AM 7 8 9 10 11 12 PM 1 2 3 4 5 6

OCT 14 1955 PM 7 8 9 10 11 12

September 28, 1955

Federal Communications Commission
Washington 25, D. C.

Gentlemen:

Will you kindly send me your recently compiled list of transmitters and monitors acceptable for use in aural broadcast services (AM and FM). I plan to publish this list in the NAEB Engineering Newsletter which goes to 220 Chief Engineers and engineers of educational radio and television stations.

Thank you.

Yours very truly,

Cecil S. Bidlack
Television Engineer

CSB:cr

May 27, 1955

Used
NL

To H.J.S.

At one of the sessions the Broadcast Engineering Conference held in connection with the NARTB Convention May 26, Commissioner Robert E. Lee of the FCC proposed the attached reallocation of the Radio spectrum between 50 and 890 megacycles. The reallocation he proposes is on the left side and present allocation on the right. He wished it made clear that this is not an official commission proposal but is his own thinking on the matter.

The reallocation would provide 47 television channels, six megacycles wide between 60 and 342 megacycles. It would delete only channel 2 of the present VHF bands and include all of present high band VHF channels (7-13). It would move the present FM band to the top of the TV channels giving FM 342 to 362 mc. It was stated that this was a long range project which might take as long as 15 years to complete, however consensus of opinion was that the move was a good one - that it would bring all TV into the VHF band and due to ease of design of TV tuners might decrease the cost of all band TV sets considerably.

By proper choice of channels some space might be found immediately although the complete change would take time. However certainly the plan is a long range one of some significance, which if accomplished might well take care of television needs for the next 100 years as well as providing better transmission for the mobile services, by moving them to the 54 to 60 mc band. This would also provide a buffer zone from the practically dead 50-54 mc amateur band which is not usable because of the interference caused to the neighboring channel 2 TV channel.

C.S.B.

CSB:jy

PROPOSED ALLOCATIONS

Amateur	50
Operational fixed	54
Land mobile	
Aeronautical uses	
etc	60
Television Channels	
1 to 47 inclusive	
Fm Broadcasting	342
Aeronautical navigation	362
Omni-directional Range	
Airdrome control	
Aeronautical mobile	
Military	
Meteorological aids	
Land mobile	
Op rational fixed	
Citizens Radio Band	
For Reassignment	666
	890

PRESENT ALLOCATIONS

Amateur	50
Television channels	54
2,3 & 4	
Operational - fixed	72
Television channels	76
5 & 6	
FM - Broadcasting	82
Aeronautical navigation	108
Omni-dir. Range	
Airdrome control	
Aeronautical mobile	132
Military	
Amateur	144
Military	148
Land-mobile	152
Govt. non-military	162
Television channels	174
7 to 13 inclusive	
Govt. non-military	216
Amateur - limited	220
Military	225
Meteorological aids	400
Govt & Military	406
Amateur	420
Land-Mobile	450
Citizens radio band	460
Television channels	470
U H F	
14 to 83 inclusive	
	890

MARCUS COHN
LEONARD H. MARKS
PAUL DOBIN
GEORGE MACCLAIN
SYLVIA D. KESSLER

LAW OFFICES
COHN AND MARKS
CAFritz BUILDING
WASHINGTON 6, D. C.

TELEPHONE
STERLING 3-5880

December 15, 1954

Dr. Harry J. Skornia
National Association of Educational Broadcasters
119 Gregory Hall
University of Illinois
Urbana, Illinois

Dear Dr. Skornia

I am enclosing herewith the stamped file copy of NAEB's Reply Comments in connection with the Commission's inter-city rule-making proceeding. There are also enclosed five additional copies for your files.

After considering your suggestion that we follow the JCET's Comments, I too agreed with its desirability. Thus, as you will note, NAEB's Comments, in substance, merely reaffirm and support the position taken by the JCET except that our Comments include verbatim copy of the Wisconsin State Radio Council's letter to the Commission.

Upon checking the Commission's files, I ascertained that the Wisconsin State letter was not a part of the official docket, and since it so vividly presents the adverse effects upon educational television of the Commission's present Rule, I believed it desirable to quote the letter in full in our Comments.

When you first wrote to Leonard concerning the preparation of our Comments you enclosed your recent file of correspondence with the Wisconsin State Radio Council and asked that it be returned to you. This data is enclosed herewith.

Sincerely

Sylvia D. Kessler
Sylvia D. Kessler

Enclosures

COPY

Law Offices
COHN and MARKS ✓
Cafritz Building
Washington 6, D. C.

October 13, 1954

Mr. Harry J. Skornia
National Association of
Educational Broadcasters
University of Illinois
119 Gregory Hall
Urbana, Illinois

Dear Harry:

Let me reply to your letter of October 6 and answer your several questions as follows:

1. The new articles and by-laws should be voted on by the membership at the New York meeting. You may construe the mail vote as advisory but I would not recommend that these ballots be counted in the final decision. Instead, only the ballots cast at the New York meeting should be considered.
2. Either Marcus or I will be present at the NABE meeting. There is a chance that I will have to go to Mexico City on that date, in which case Marcus will attend.
3. We should like to have you schedule this meeting for Friday, October 29 and one of us will arrive on the evening previous.

Will you please let us know when the Board expects to meet so that we may plan on coming to the meeting if it is at all possible to do so.

Sincerely,

/s/ Leonard
Leonard H. Marks

copied 10/15/54 HGS. we

STATE OF WISCONSIN

Return to Skornia

STATE RADIO COUNCIL

BOARD OF VOCATIONAL AND ADULT EDUCATION · DEPARTMENT OF PUBLIC INSTRUCTION
DEPARTMENT OF AGRICULTURE · STATE TEACHERS COLLEGES · UNIVERSITY OF WISCONSIN

RADIO HALL, MADISON
November 8, 1954

Dr. Harry J. Skornia
NAEB
14 Gregory Hall
Urbana, Illinois

Hello, Harry!

As you know, today is the deadline for the filing of comments in the FCC Rule Making Procedure on inter-city television relay stations. A copy of our informal comment is enclosed. You may wish to pass this on to Bidlack.

I'm wondering--did NAEB enter any statement or comment?

We are trying to put together a brief summary and interpretation of the voting on the referendum last week plus an answer to the question everyone is asking, "What next for educational television in Wisconsin?" Will send you a copy when and if.

Cordially,

H. B. McCarty
H. B. McCarty
Executive Director

STATE RADIO COUNCIL

BOARD OF VOCATIONAL AND ADULT EDUCATION - DEPARTMENT OF PUBLIC INSTRUCTION
DEPARTMENT OF AGRICULTURE - STATE TEACHERS COLLEGES - UNIVERSITY OF WISCONSIN

RADIO HALL, MADISON

November 6, 1954

Mr. George C. McConaughy, Chairman
Federal Communications Commission
Washington 25, D.C.

Dear Sir:

Re: Proposed Rule Making
Inter-city Relay Stations

Because of the negative vote in the Wisconsin referendum November 2 on the question of a statewide educational television network, we are not in a position to make a specific request or file a formal comment in the review of existing rules regarding inter-city relay stations.

However, the outcome of the referendum has a direct bearing on the inter-city relay problem, and we are therefore providing this informal report for your background information.

One of the main arguments of those opposed to state educational television was that costs are so high the taxpayers could not afford such a service. The Wisconsin Committee on State-Owned Tax-Supported Television, leader of the opposition to the proposed statewide network, stated that the relay service alone for the network would cost approximately \$450,000 annually. This estimate was based on an assertion that the FCC rules would not permit the State of Wisconsin to construct and operate its own microwave system. The report of that Committee was widely quoted and was undoubtedly influential in defeating the plan. In addition, the opponents vigorously challenged the legality of the State Radio Council proposal in hearings before legislative committees and used the \$450,000 relay cost estimate as an example of prohibitive costs.

The Wisconsin State Radio Council, on the other hand, offered a statewide educational television network plan in which the interconnecting microwave relay service could be provided for an estimated annual cost of only \$25,000. . . Details of this proposal are contained in the accompanying copy of a memorandum dated October 26, 1954 on "Microwave Relay Facilities Needed."

This plan, with its cost estimate of only \$25,000 annually, was ridiculed by the opposition as being wholly unrealistic in view of the present FCC rules. At the same time, we were unable to state positively that the State Radio Council's plan to construct and operate its own microwave relay system would be approved.

Accordingly, we are forced to conclude that a factor in the defeat of the Wisconsin educational television network plan is an existing FCC rule which permits opponents to claim that the State could not construct and operate its own relay system and would, therefore, be obliged to purchase common carrier service at a cost of approximately \$450,000 annually.

Mr. George C. McConaughy

- 2 -

November 6, 1954

You can appreciate the fact that such a limitation, if applied generally, would be very damaging to the growth of educational television, just as it has been already here in Wisconsin. We respectfully urge that your rules and policies be relaxed to permit educational and public service agencies to provide their own microwave relay service where needed to help in the realization of the great educational potential of television.

Very truly yours,

H. B. McCarty
Executive Director

cc FCC Members

To: Wisconsin Legislative Council
From: Wisconsin State Radio Council
Date: October 26, 1954

EDUCATIONAL TELEVISION

Memorandum On

MICROWAVE RELAY FACILITIES NEEDED for Noncommercial Educational Television Network for the State of Wisconsin

I PURPOSE

To provide an educational television service throughout the state, a system of twelve transmitting stations has been proposed. Herewith is an outline of a microwave relay system to interconnect the twelve broadcast stations for simultaneous transmission of the same program.

II DESCRIPTION

The proposed relay system is illustrated on the accompanying map. It consists of two main relay circuits as follows:

1. A two-way circuit between Madison and Milwaukee. This link would make it possible to originate TV programs in either Madison or Milwaukee.
2. A one-way circuit from Madison to the TV station located near Eau Claire via Adams and Black River Falls with a branch circuit from Black River Falls to the TV station near LaCrosse.

These two main circuits would supply programs directly to channel 10 (Milwaukee), channel 58 (Adams), channel 32 (LaCrosse) and channel 19 (Eau Claire). The remaining TV stations would be programmed by relay pick-up service as indicated on the map. For example, channel 46 (Wausau) would be programmed by picking channel 58 (Adams) off the air near Wisconsin Rapids, converting to microwave frequency and transmitting over a microwave relay to Wausau. For some of the TV stations, as indicated on the map, two such operations would be required. For example, channel 19 (Eau Claire) would be picked up near Barron, transmitted by microwave to the Shell Lake station, then channel 30 (Shell Lake) would be picked up near Gordon and transmitted by microwave to the Superior station.

III ESTIMATED RELAY CIRCUITS

	<u>No. of Hops</u>
Madison to Milwaukee (two-way)	3
Madison to Eau Claire (Colfax FM site)	6
Pick-up of Channel 19 on Barron Hill (Barron County) relayed to Shell Lake	1
Pick-up of Channel 30 near Gordon relayed to Superior Station	1
Pick-up of Channel 30 near Hayward relayed to Park Falls Station	1
Pick-up of Channel 58 near Wisconsin Rapids relayed to Wausau Station	1
Pick-up of Channel 21 on Blue Mound relayed to Highland	
Black River Falls relay station (on Madison to Eau Claire link) to LaCrosse	1
Pick-up of Channel 58 near Berlin relayed to Chilton Station	1
Pick-up of Channel 24 near Green Bay relayed to Marinette Station	1
Total two-way hops	3
Total one-way hops	11

IV ESTIMATED EQUIPMENT REQUIRED

<u>A. Transmitter-Receiver Units</u>	Number
Madison-Milwaukee (3 two-way units)	6 ✓
Madison-Eau Claire (Colfax FM site)	6 ✓
To pick up one TV station and relay to next TV station	7 ✓
Relay branch from Madison-Eau Claire system at Black River Falls to La Crosse Station	<u>1</u>
Total Transmitter-Receiver Units	20
 <u>B. Relay Towers (other than TV station towers)</u>	
Madison-Milwaukee	1
Madison-Eau Claire	4
Torelay pick-ups as described above	<u>7</u>
Total Relay Towers	12

V ESTIMATED COST

20 Transmitter-Receiver Units @ \$15,000	\$300,000
10 200 ft. Towers and Housings @ 6,000	60,000
? 100 ft. Towers and Housings @ 3,000	<u>6,000</u>
Total	366,000
Less Saving by locating relay antennas on relay towers of Motor Vehicle Dept. in 8 locations	<u>48,000</u>
Total	318,000
Contingencies	<u>7,000</u>
Total Estimated Net Cost	\$325,000

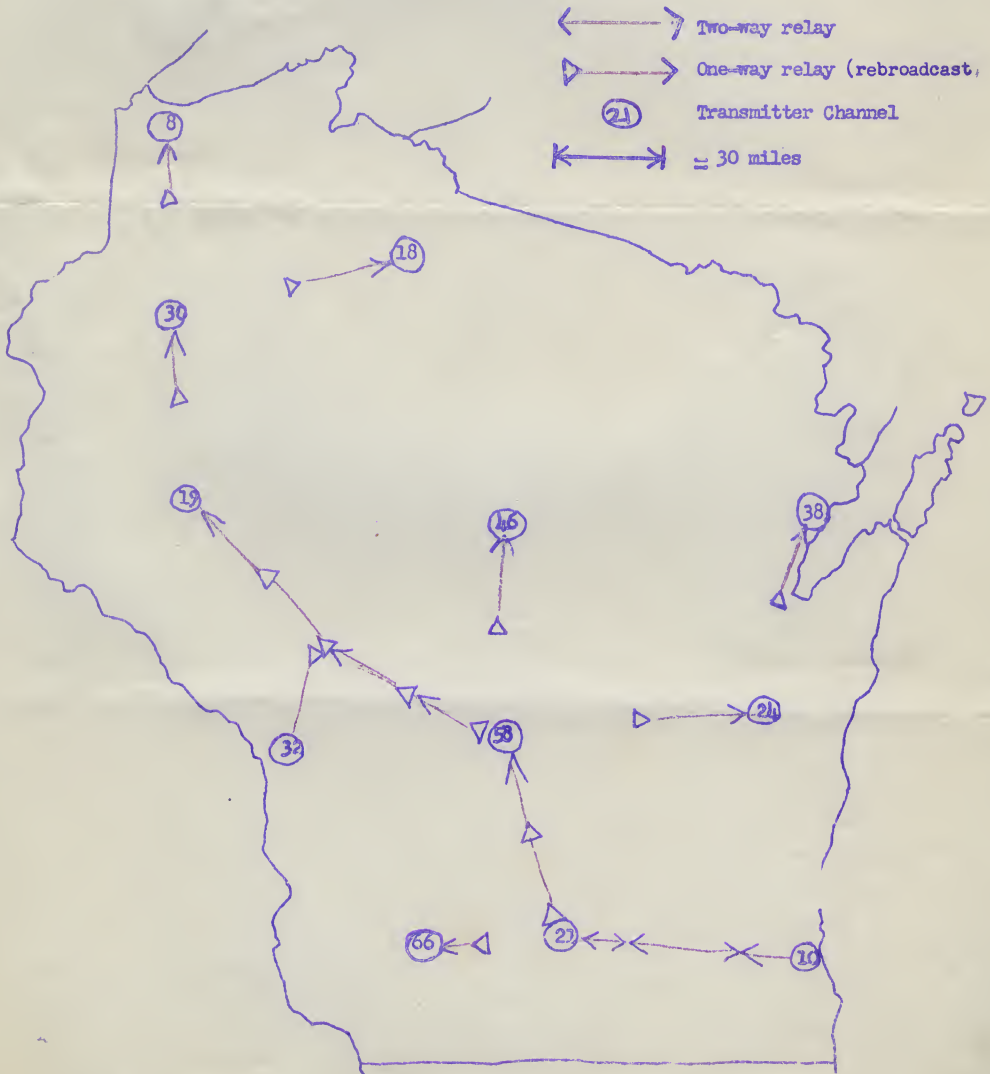
VI ESTIMATED ANNUAL OPERATING COST

Personal Services	4,000
Supplies and Expense	
Travel	3,000
Tubes (20 stations @ \$700)	14,000
Equipment Repair (20 stations @ \$150)	3,000
Power (20 stations @ \$50)	<u>1,000</u>
Total Supplies and Expense	<u>21,000</u>
Total Estimated Annual Operation	\$ 25,000

TV MICRO-WAVE RELAY SYSTEM

to interconnect the proposed

WISCONSIN NON-COMMERCIAL EDUCATIONAL
TELEVISION NETWORK



VII. ESTIMATED ANNUAL COST IF SERVICE PROVIDED BY COMMON CARRIER

Existing tariffs for microwave relay service provided by common carrier facilities (Telephone Co.) would result in an annual charge in excess of the estimated capital outlay for the proposed relay system and many times the estimated annual operating cost of the state's own facilities. Rates are based on circuit mileage, connection services, circuit reversals, and other factors.

Probable Routes and Miles of Circuits
of Microwave Relay Interconnection of
Proposed Educational Television Network in Wisconsin

<u>Route</u>	<u>Air Line Miles</u>
Madison to Milwaukee	72
Madison to Adams	61
Adams to Wausau	72
Milwaukee to Chilton	72
Chilton to Oconto	60
Adams to Black River Falls	57
Black River Falls to La Crosse	30
Black River Falls to Colfax	64
Colfax to Shell Lake	50
Shell Lake to Park Falls	72
Shell Lake to Superior	58
Madison to Highland	<u>47</u>
Total Miles	715

Rates

Combined Video and Audio Circuit - per mile per month (8 hours per day or fraction thereof)	\$ 39.50
Connection Charge - per station per month	555.00
Local Charge from nearest terminal to TV station - 1 mile circuit per month	263.25

Estimated Annual Costs

715 miles (see table above) x \$39.50 x 12 months -	\$338,910.
12 station connections x 555.00 x 12 months -	79,920.
12 local charges x 263.25 x 12 months -	37,908. (minimum)
Additional charges for reversals on two-way circuit -	<u>?</u>
Total Estimated Annual Costs	\$456,738. (plus ?)
Less Taxes	?

VIII. PRACTICALITY OF PLAN

The basic principle underlying the microwave relay system described herein is already in operation in Wisconsin. This is the principle of picking up television frequencies (including both sound and picture signals), converting them to microwave frequencies, relaying them to a second television station and converting them again to television frequencies.

Station WEAU-TV, Eau Claire, gets its network programs in this manner from Station KROC-TV, Rochester, Minnesota. Signals from KROC-TV on Channel 10 are picked up on a receiver at a point approximately 25 miles southwest of Eau Claire, converted to microwave frequency and then relayed to WEAU-TV, where they are converted back to television frequencies and transmitted over Channel 13.

This principle of pick-up and rebroadcast on different frequencies is an essential feature of the state FM network, tested and proved by years of successful operation.

The relay plan contemplates use of certain towers of the Motor Vehicle Department's relay system to support the television microwave antennas in return for MVD use of FM radio towers at Delafield and Chilton, as well as other mutually advantageous arrangements. Considerable savings would result from such cooperation.

IX. FCC RULES AND REGULATIONS

Present rules of the Federal Communications Commission "permit privately-owned microwave links to be used for connecting local and remote studios (including studios in other cities) to the TV transmitter with which the studios are associated, so it is possible to plan educational TV operation of this nature with likelihood of approval." This is an opinion by C. H. Braun, formerly on the engineering staff of the FCC, now Engineering Consultant, Joint Committee on Educational Television, Washington, D.C.

Moreover, the FCC has before it a petition requesting relaxation of its rules pertaining to inter-city relay stations and has invited comments and proposals from interested parties. In its announcement of September 16, 1954 (Public Notice 10851) the FCC has indicated a concern about situations in which the usual conditions and charges may deter the development of television services.

In view of these considerations and others, such as the extensive use of private microwave relay systems by pipe line companies and other utilities, it is expected that public agencies dedicated to education and public welfare will be given the necessary authorization to provide microwave relay services as described herein.

Source of Microwave Relay Information and Estimates: Glenn Koehler, Professor of Electrical Engineering, University of Wisconsin; author, "Circuits and Networks," college textbook being published by The Macmillan Company, November, 1954; co-author, "Ultra High Frequency Techniques," D. Van Nostrand & Co.; author, section on Audio Frequency Amplifiers, "Radio Engineering Handbook," McGraw-Hill; Technical Director, Wisconsin State Radio Council.

C O P Y

October 27, 1954

H. B. McCarty, Executive Director
State Radio Council
Radio Hall
Madison, Wisconsin

I believe that the proposed Wisconsin educational television network is soundly engineered and that substantially complete coverage of the state would be provided. The practicality of microwave relaying is proven by the many installations in everyday use, and the proposed network should not involve unusual problems. FCC approval has been given for microwave stations for connecting Alabama educational television stations and similar approval for the Wisconsin network would seem just as likely. The Wisconsin educational FM network, which leads the nation, is a tribute to the engineering ability of Prof. Koehler.

C. M. Braum
Engineer Consultant
Joint Committee on Educational
Television

MARCUS COHN
LEONARD H. MARKS
PAUL DOBIN
GEORGE MACCLAIN
SYLVIA D. KESSLER

LAW OFFICES
COHN AND MARKS
CAFRTIZ BUILDING
WASHINGTON 6, D. C.

TELEPHONE
STERLING 3-5860

October 20, 1954

RECEIVED
NAEB HEADQUARTERS

Mr. Harry J. Skornia
Executive Director
National Association of Educa-
tional Broadcasters
University of Illinois
119 Gregory Hall
Urbana, Illinois

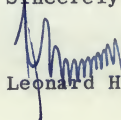
OCT 21 1954
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

Dear Harry

I plan in arriving in New York on Wednesday, October 27th. Unfortunately, the Board will have concluded its meetings by that time. However, if there is any matter of such importance that you feel my presence is necessary, please wire me and I can make arrangements to be there earlier. If not, I will look forward to seeing you on Wednesday.

I was in New York yesterday and saw Sy, who gave me a complete description of the convention plans. It looks like it will be a success.

Sincerely


Leonard H. Marks

MARCUS COHN
LEONARD H. MARKS
PAUL DOBIN
GEORGE MACCLAIN
SYLVIA D. KESSLER

LAW OFFICES
COHN AND MARKS
CAFRTZ BUILDING
WASHINGTON 6, D. C.

TELEPHONE
STERLING 3-5880

October 1, 1954

RECEIVED
NAEB HEADQUARTERS

OCT 4 1954

AM PM
7 8 9 10 11 12 1 2 3 4 5 6

Mr. Harry J. Skornia
National Association of
Educational Broadcasters
University of Illinois
119 Gregory Hall
Urbana, Illinois

Dear Harry

We have previously given consideration to the Commission's proposed rule making proceeding for television inter-city relay stations. It is our opinion that NAEB is not directly involved in this matter and should therefore not file comments.

I doubt very much if any of the NAEB stations will ever be faced with this problem since the rule making proceeding is primarily for those commercial stations who desire to relay network programs.

I am looking forward to seeing you in New York the latter part of this month and I certainly hope that the convention is a big success.

Sincerely


Leonard H. Marks

October 15, 1954

Mr. Leonard H. Marks
Law Offices-CHEN AND MARKS
Gefrits Building
Washington 6, D. C.

Dear Leonard:

Unless someone changes, the Business Meeting on Constitution will be kept to Friday at 9 A. M., though it may have to be broken at 10 and picked up later.

The Board meets, as now scheduled, at
8:00 P. M. Sunday, October 24
9:30-12:00 & 2:00-5:00, " 25
9:30-12:00 " 26

Regards though in haste.

Sincerely,

Harry J. Skornia
Executive Director

HJS:cp

CC: Siegel
Amsus
Files

MARCUS COHN
LEONARD H. MARKS
PAUL DOBIN
GEORGE MACCLAIN
SYLVIA D. KESSLER

LAW OFFICES
COHN AND MARKS
CAFRITZ BUILDING
WASHINGTON 6, D. C.

TELEPHONE
STERLING 3-5880

October 13, 1954

RECEIVED
NAEB HEADQUARTERS

OCT 14 1954

AM PM
7 8 9 10 11 12 1 2 3 4 5 6

Mr. Harry J. Skornia
National Association of Educational
Broadcasters
University of Illinois
119 Gregory Hall
Urbana, Illinois

Dear Harry

Let me reply to your letter of October 6 and answer your
several questions as follows:

1. The new articles and by-laws should be voted on by the membership at the New York meeting. You may construe the mail vote as advisory but I would not recommend that these ballots be counted in the final decision. Instead, only the ballots cast at the New York meeting should be considered.
2. Either Marcus or I will be present at the NAEB meeting. There is a chance that I will have to go to Mexico City on that date, in which case Marcus will attend.
3. We should like to have you schedule this meeting for Friday, October 29 and one of us will arrive on the evening previous.

Will you please let us know when the Board expects to meet so that we may plan on coming to the meeting if it is at all possible to do so.

Sincerely


Leonard H. Marks

✓
September 29, 1954

Mr. Leonard Marks
Cohn and Marks, Attorneys
Cafritz Building
Washington 6, D. C.

Dear Leonard:

The attached letter, received by Frank Schooley here, was given me in case it is felt that the NAEB might wish to voice an opinion. Frank tells me that the University will not. I have sent a copy of it to Cecil Bidlack to get his point of view as an engineer. Meanwhile, do you think that, as the professional association of educational broadcasters, we should file a brief?

Will hope that you will be attending our New York Convention.

Sincerely,

Harry J. Skornia
Executive Director

HJS:cp

Enclosure

Cohn & Marks file

FOR INFORMATION OF

Law Offices
Dow, Lohnes and Albertson
Munsey Building
Washington 4, D.C.

September 16, 1954

Mr. Frank E. Schooley
Radio Station WILL
University of Illinois
119 Gregory Hall
Urbana, Illinois

Dear Mr. Schooley:

We are enclosing a copy of a Notice of Proposed Rule Making (Docket No. 11164), released September 16, 1954, in which the Commission proposes to revise its existing rules and policies regarding the construction and operation of television inter-city relay stations. In substance, the proposal is to change the Rules and Regulations so that the Commission, at its discretion and on an interim basis, may authorize television stations to operate their own inter-city relay systems in preference to using expensive common carrier facilities. The proposed rules are directed primarily toward the problem presented by the application of the present regulations to television stations located in relatively small communities where the common carrier charges are not in line with the economic prospects of those stations operating on a profitable basis.

Comments in connection with the proposed Rules and Regulations must be filed by November 8, 1954. We believe you might wish to file such comments and in all probability, you have quite a good deal of information on hand which would be of interest to the Commission in connection with this particular proceeding. We point out that it is likely that the proposed rules will be vigorously opposed by the common carrier companies and that, therefore, the probabilities of the adoption of the proposed rules would be greatly increased if the Commission were to receive strong support from those members of the broadcasting industry whose interests are, or may be, directly involved in this matter.

We would appreciate having the benefit of your views with respect to the Commission's proposal, as set forth in the enclosure, and to know as promptly as possible whether you desire to have comments prepared and filed on your behalf in that matter.

Cordially yours,

/s/ Earl R. Stanley

encl

Copied NAEB Hq.
Sept. 28, 1954 jy

297 NATIONAL ASSOCIATION OF EDUCATIONAL BROADCASTERS


 NAEB

ENGINEERING SERVICE

14 GREGORY HALL
URBANA, ILLINOIS

August 5, 1954

REF BY S-273

Superintendent of Documents
Government Printing Office
Washington 25, D. C.

AUG-12-54

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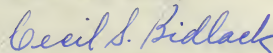
• 8- COUPONS

0.15

Dear Sir:

Enclosed please find check for \$2.95 to cover the FCC
publications marked with arrows on the attached list.

Yours very truly,



Cecil S. Bidlack
Television Engineer

CSB:jy

7	Enclosed <u>280</u>
	To be mailed
	later
	Subscriptions
	Ref. n.l.
	Copy ref. n.l. <u>15</u>
	Postage

August 5, 1954

Federal Communications Commission
Washington 25, D. C.

Gentlemen:

I note that the following publications of the FCC are being revised and are not available from the Government Printing Office.

Rules and Regulations Governing:

Part O, statements of organization of the commission,
Delegations of Authority, and Places for Submitting
Applications and other requests and Securing Public
Information, Revised to January 18, 1950 Part I,
Practice and Procedure, Revised to December 29, 1949.

Will you kindly advise me when the above publications are expected to be available or if there are mimeographed copies which replace them.

Please send me another copy of your list of publications obtainable from the Government Printing Office.

Yours very truly,

Cecil S. Bidlack
Television Engineer

CSB:jy

[n d]

TO: Messrs. Jim Miles, Waldo Abbott, and Ed Weggener

FROM: John W. Dunn

SUBJECT: FAE Production Centers Project

Upon returning home to Norman, I reread Scott Fletcher's letter to Jim Miles, dated April 4, 1952. The fourth paragraph of this letter seems to justify the committee which was elected by the Board of Directors to assist in the administration of the funds from FAE.

"I am writing to ask you and through you, your associates in NAEB, to evaluate the resources and technical skills of the several institutions which may be interested in having some financial assistance in programming, and to make recommendations to me for specific grants."

It would seem to me that the use of the word "you" in succeeding paragraphs is plural rather than singular. May I again affirm my stand which was taken during meetings of the Board of Directors with regard to the relationship between NAEB and all foundation projects:

That NAEB maintain all control over projects rather than that this control be delegated to individuals who may or may not be in sympathy with the ideals of educational broadcasting.

From our several conversations on this project, several ideas crystalized.

1. All active and associate members of NAEB would be given an opportunity to make application for grants under the terms of this project.
2. That regional directors will be asked to recommend that certain production centers, not affiliated with NAEB, be permitted to make application for project grants.
3. That other than publicity to these groups, no widespread or general announcements be made regarding the proposed project grants.
4. That all projects will be in the field of adult education.
5. That no moneys allocated under the project be spent for any equipment. Any special equipment needed specifically for the accomplishment of the project might be allowed.
6. That legitimate expenditures under the project may include money for script writers, production, program co-ordinator, key talent, or research.
7. That the ceiling for any radio project will be \$7,000, for any TV project \$9,000; but that no production center will necessarily be allocated the maximum figures.

8. Shows to be produced under the project may be current productions of the production center, but they should not be dated or of such a regional nature that they could not be used by others at a later date.
9. That the shows produced under the project need not be wholly dramatic, but may be in the field of public discussion, interview type, etc.
10. That applicants should have the series of shows very well outlined but not completely written or produced before the application is made under this grant.
11. That applicants for aid under this grant will be given 60 days in which to get their applications in to NAEB headquarters.
12. That applications will be screened at headquarters to weed out those which are obviously not suitable and that members of the committee would then be asked to pass on those applications which the headquarters screening has certified.
13. That all applications will be processed within 30 days after the dead line for turning them in to headquarters.

These are some of the things which I jotted down from our conversations. There may be other points which I failed to get, however, I think each of us should do the same so that Jim may formulate a method of procedure for handling the project as soon as he is given the green light by Fletcher.

I am of the opinion that while we should expedite this project with great alacrity, there is grave danger that we can move too fast so that results will not be of high caliber. Certainly, I don't think we should be as slow as the four series now being broadcast by the other FAE projects.

Carbon copies: NAEB Officers and Board of Directors

JWD/am

Scanned from the National Association of Educational Broadcasters Records
at the Wisconsin Historical Society as part of
"Unlocking the Airwaves: Revitalizing an Early Public and Educational Radio Collection."



A collaboration among the Maryland Institute for Technology in the Humanities,
University of Wisconsin-Madison Department of Communication Arts,
and Wisconsin Historical Society.

Supported by a Humanities Collections and Reference Resources grant from
the National Endowment for the Humanities



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